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TREATISE

ON

HEALTH and LONG LIFE.

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A

TREATISE

ON

HEALTH and LONG LIFE.

By GEORGE CHEYNE, M. D. F. R. S.

To which is added to this EDITION,
(not in any former one)

The LIFE of the AUTHOR.

The TENTH EDITION.

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MULLINGAR:

PRINTED BY WILLIAM KIDD.

M,DCC,LXXXVII.

TO THE

Right Honourable

Sir JOSEPH JEKYLL,

Maſter of the ROLLS.

This TREATISE

is inſcribed

As a Teſtimony of Reſpect,
and Gratitude,

BY

His moſt obliged

faithful humble Servant,

GEORGE CHEYNE.

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THE AUTHOR'S PREFACE.

THIS being probably the laſt time I may treſpaſs on the publick, I look upon myſelf in ſome meaſure obliged to ſettle my accounts with the world as an author, before I make my exit, by endeavouring to ſhew I have not always offended out of preſumption, vanity, or wantonneſs.

The firſt time I adventured in print, was on account of my great maſter and generous friend, Dr. Pitcairn. He thought

himſelf ill-uſed by ſome of his brethren of the profeſſion, who then were at inteſtine war on the ſubject of fevers; and fancied the handſomeſt way to bring them down, was to exhibit a more ſpecious account of this diſeaſe, than any of them had ſhewn. His buſineſs then in the practice of phyſick was ſo great, as not to allow him ſufficient time for ſuch a work. Two others therefore, with myſelf, were joined to manage the affair: in which he was to cut and carve, and to add the practical part. My province was the Theory. I was then very young in the profeſſion, and living in the country. But in a few days I brought in my part finiſhed, as it now appears, under the title of The New Theory of Fevers. The others either ſuppreſſed or forgot theirs, and mine, without the leaſt alteration, but in a few words, was ordered for the preſs. I could not reſiſt the commands of my friends; but would not ſuffer my name to be put to it, being conſcious it was a raw and unexperienced performance. There are though ſome things in it which may be of uſe to beginners, both as to the method of philoſophiſing on the ani-

animal economy, and in the account of the manner of the operation of the greater Medicines. The foundations alſo and the cauſes aſſigned for accute and ſlow fevers, I ſtill think ſolid and juſt, and more particular and limited than thoſe of any other theory yet publiſhed. But it wants ſo much filing and finiſhing, ſo many alterations and additions as would coſt me more labour and pains than the writing a new treatiſe on the ſame ſubject: ſo that out of mere lazineſs and inappetency, I have thrown it by as unripe fruit, and ſuffered it to be as if it never had been.

My next ſally was in a book of abſtracted Geometry and Algebra, entitled, Methodus Fluxionum Inverſa, brought forth in ambition and bred up in vanity. There are ſome things in it tolerable for the time, when the methods of quadratures, the menſuration of ratio's and transformation of curves, into thoſe of other kinds, were not advanced to ſuch heights as they now are. But it is a long time ſince I was forced to forego theſe barren and airy ſtudies for more ſubſtantial and

commodious ſpeculations: indulging and rioting in theſe ſo exquiſitely bewitching contemplations, being only proper for publick profeſſors, and thoſe born to eſtates, and who are under no outward neceſſities. Beſides, to own a great but grievous truth, though they may quicken and ſharpen the invention, ſtrengthen and extend the imagination, improve and refine the reaſoning faculty, and are of uſe both in the neceſſary and the luxurious refinement of mechanical arts; yet having no tendency to rectify the will, ſweeten the temper, or mend the heart, they often leave a ſtiffneſs, poſitiveneſs, and ſufficiency on weak minds, much more pernicious to ſociety, and the intereſts of the great end of our being, than all the advantages they bring them can recompence. They are indeed edged tools, not to be truſted in the hands of any, but thoſe who have already acquired an humble heart, a lowly ſpirit, and a ſober and teachable temper. For in others they are very apt to beget a ſecret and refined pride, an over-weening and over-bearing vanity, (the moſt oppoſite temper to the true Goſpel-ſpirit, which, with-

without offence, I may ſuppoſe to be the beſt diſpoſition of mind) that tempts them to preſume on a kind of omniſcience in reſpect of their fellow creatures, that have not riſen to their elevation; and to ſet up for an infallibility, or at leaſt a deciſive judgment, even in matters which do not admit of a more or leſs (their proper object) of which kind whatever relates to the infinite Author of our Being moſt certainly is. Upon all which accounts, conſcious of my own weakneſs, I have long ſince bid them an adieu, farther than as they ſerve to amuſe, or are uſeful in the abſolute neceſſities of life.

The defence of that book againſt the learned and acute Mr. Abr. de Moivre, being written in a ſpirit of levity and reſentment, I moſt ſincerely retract and wiſh undone, ſo far as it is perſonal or peeviſh, and aſk him and the world pardon for it; as I do for the defence of Dr. Pitcairn's Diſſertations, and the New Theory of Fevers, againſt the late learned and ingenious Dr. Oliphant, I heartily condemn and deteſt all perſonal reflec-

tions, all malicious and unmannerly terms, and all falſe and unjuſt repreſentations, as unbecoming gentlemen, ſcholars, and chriſtians; and diſprove and undo both performances, as far as in me lies, in every thing that does not ſtrictly and barely relate to the argument.

The firſt part of the philoſophical principles, that of natural religion, conſiſts merely of diſcourſes and lectures of natural philoſophy, and of its conſequences on religion, occaſionally read or diſcourſed to that moſt noble aud great perſon, the Duke of Roxburgh, who is now ſo great an ornament to his country, and his high employments, to whom they were inſcribed. I thought they might be of uſe to other young gentlemen, who, while they were learning the elements of natural philoſophy, might have thereby the principles of natural religion inſenſibly inſtilled into them. And accordingly it has been and is ſtill uſed for that purpoſe at both Univerſities. Upon which account, upon proper occaſions, I will not fail to improve it in all the new

diſ-

diſcoveries in experimental philoſophy, or in the final and natural cauſes of things as happen to be made, ſo as to leave it as little imperfect in its kind as I poſſibly can.

The ſecond part of the philoſophical principles, to wit that of Revealed Religion, was added afterward, to ſhew, that all our knowledge of nature, was by analogy, or the relations of things only, and not their real nature, ſubſtance, or internal principles: That from this method of analogy (the only medium of human knowledge) we ſhould be neceſſarily led, to conclude the attributes or qualities of the ſupreme and abſolute Infinite, were indeed analogous to the properties or qualities of finite beings, but only in ſuch a manner as the difference between infinite and finite requires; and that therefore, not being able to know preciſely theſe differences, we ought implicitly to believe without reaſoning what is revealed to us concerning the nature of the infinite Being; or bring our reaſon to ſubmit to the myſteries of faith.

How I have ſucceeded is not for me to de-

determine; as the end was honeſt, I am ſecure the great principles and the fundamental propoſitions are true and juſt. They may want a little farther clearing up and explication: but as yet I have met with no reaſon to retract any thing material; elſe I ſhould moſt certainly do it.

The Eſſay on the Gout and Bath Waters was brought forth by mere accident. The firſt draught being, as I there mentioned, only a paper of directions for a gentleman, my friend and patient, troubled with the gout. It was enlarged upon different occaſions, and publiſhed to prevent its being pyrated; ſeveral copies having been given out to others in the ſame circumſtances. I have the ſatisfaction to know from many different hands, that it has benefitted great numbers of infirm and afflicted perſons: and ſhall therefore go on to cultivate it as far as my poor abilities will permit.

I am now come to this my laſt production; whoſe origin was as caſual as that of my former. My good and worthy friend, the preſent maſter of the rolls, hav-

having been laſt autumn at Bath, for a confirmation of his health, at his departure deſired of me to draw up ſome inſtructions in writing to direct him in the conduct of his health for the future, and in the manner of ſupporting his ſpirits free and full, under the great buſineſs he is engaged in. I was then in the hurry of our ſeaſon, and could not ſo ſoon anſwer his expectation, as his real worth, and my ſincere eſteem required. I thought myſelf therefore the more obliged as ſoon as I had leiſure, to exert myſelf to the uttermoſt in obedience to his commands.

At firſt I drew up moſt of theſe rules at the end of the ſeveral chapters; but, upon reflexion, thought it not reſpect enough to his good taſte and capacity to judge of the reaſons of things, to preſcribe him bare and dry directions in matters of ſo great moment. I added therefore the philoſophical account and reaſons of theſe rules, which make up the bulk of the chapters themſelves. He, out of his love to his fellow-citizens (which is one ſhining part of his character, and which I ought to ſuppoſe has in this inſtance only

ly

ly impoſed on his better judgment) deſired they might be made publick. Upon which account ſeveral things have been ſince added, to make the whole of more general uſe. If therefore any thing in this treatiſe be tolerable, or if any perſon receive benefit by it, they owe it entirely to that excellent perſon, upon whoſe account ſolely it has been undertaken, and at whoſe particular requeſt it is publiſhed.

I have indeed long and often obſerved, with great pity and regret, many very learned, ingenious, and even religious perſons, who being weak and tender (as ſuch generally are) have ſuffered to the laſt extremity for want of a due regimen of diet, and other general directions of health, who had good ſenſe enough to underſtand the force and neceſſity of ſuch rules, valued health ſufficiently, and deſpiſed ſenſual gratifications for the pleaſures of the mind ſo far, as to be able and willing to abſtain from every thing hurtful, deny themſelves any thing their appetites craved, and to conform to any rules for a tolerable degree of health, eaſe, and freedom of ſpirits; and yet being ig-

ignorant how to conduct themſelves, from what to abſtain and what to uſe, they have ſuffered even to mortal agonies; who, had they been better directed and inſtructed, had paſſed their lives in tolerable eaſe and quiet. It is for theſe, and theſe only, the following treatiſe is deſigned. The robuſt, the luxurious, the pot companions, the looſe, and the abandoned, have here no buſineſs; their time is not yet come. But the ſickly and the aged, the ſtudious and the ſedentary, perſons of weak nerves, and the gentlemen of the learned profeſſions, I hope, by the divine bleſſing on the following treatiſe, may be enabled to follow their ſtudies and profeſſions with greater ſecurity and application, and yet preſerve their health and freedom of ſpirits more entire and to a longer date.

I am morally certain, had I known and been as well ſatisfied of the neceſſity of the rules here laid down, thirty years ago, as I am now, I had ſuffered leſs, and had had a greater freedom of ſpirits than I have enjoyed. But every thing is beſt

as

as it has been, except the errors and failings of our free will.

I know no uſeful means of Health and Long Life I have omitted, nor any pernicious cuſtom I have not noted; and have given the plaineſt and moſt familiar reaſons I could urge for the rules I have here laid down, Moſt of my arguments (as they needs muſt) have riſen out of the animal functions and economy: and I have uſed as little ſubtilty and refinement in my explications of theſe, as the preſent ſtate of natural philoſophy could admit. I have been often contented with plain and obvious facts to account for appearances, and the cautions thence deduced; when, according to the humour of the preſent age, I might have run into refined ſpeculations of metaphyſics, or mathematicks; being contented with the Craſſo Modo philoſophari; becauſe we ſhall never be able to ſearch out the works of the Almighty to perfection, ſo ſo as to penetrate the internal nature of things.

I have conſulted nothing but my own experience and obſervation on my own crazy carcaſe and the infirmities of others

I have treated, in the following rules, their reaſons and philoſophy, (ſo that if any thing is borrowed, it has occurred to me as my own) but in ſo far as authorities go to ſhorten philoſophical accounts. Not but that all ſyſtematick writers in phyſick, and many particular authors, have treated the ſame ſubject: but their rules, beſides that they are often inconſiſtent with reaſon, or contrary to experience, are ſo general, and expreſſed in ſo unlimited and undefined terms, as leave little or no certainty in them; when applyed to particular caſes, they want the neceſſary preciſion and exactneſs, and ſo became uſeleſs or perplexing: and laſtly, when they come, (which is rarely to be found among them) to give the reaſons and philoſophy of their directions, they have not the perſpecuity and natural way of convincing the ingenious, fickly, and tender ſufferers, ſo neceſſary to make them chearfully and readily undergo ſuch ſevere reſtraints; which I take to be by far the moſt difficult part of ſuch a work, and which I have laboured with my utmoſt power to ſupply.

I know not what may be the fate and ſucceſs of this performance; nor am I

ſolicitous about it, being conſcious the deſign was honeſt, the ſubject weighty, and the execution the beſt my time, my abilities, and my health would permit, which cannot bear the labour of much fileing and finiſhing. Being careful not to incroach on the province of the phyſician, I have concealed nothing my knowledge could ſuggeſt to direct the ſufferer, in the beſt manner I could, to preſerve his health and lengthen out his life: and I have held out no falſe or deluſory lights to lead him aſtray, or torment him unneceſſarily.

If it were poſſible any ſet of men could be offended at my performance, it might be my brethren of the profeſſion, for endeavouring to leſſen the Materia Morbifica. But as this would be the moſt malicious, unjuſt, and unworthy reflection could be thrown on ſcholars and gentlemen of a liberal education; ſo I never entertained the moſt remote vanity to think any endeavour of mine would make ſo conſiderable a change in the nation; eſpecially when the devil, the world, and the fleſh were on the other ſide of the queſtion, which have ſtood their ground even againſt the rules of life and immortality

mortality brought to light by the Goſpel.

I cannot conclude this tedious preface, without begging pardon of the reader for troubling him with my private matters. All I can ſay as an apology is, that of whatſoever indifference my concerns as an author may be to him, yet they were not ſo to me; this being the only place and time I may have to adjuſt them in, and it being the heighth of my ambition.

Nil conſcire mihi, nulla palleſcere culpa.

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In Clariſſimi Medici Geo. Cheynæi Tentamen de Sanitate & Longævitate, doctum variumque Opus miratus, hæc effudit * * Virtutum illius Viri cultor impenſiſſimus.

HUC ades, o! ſævum Membris arcere Venenum
Qui cupis, &, Morbi ſemina tetra gravis.
Sive tremens paviduſque vides inſtare minacem
Scorbutum (ut videas hic Liber, ecce! docet)
Sive parant atras Hypochondria turgida Nubes,
Quæ Menti offuſæ triſtia ſpectra darent;
Seu Monſtri quodcunque imis Penetrabilus hæret,
Principium Morbi, mox generanda Lues:
Ecce Opifer præſens, CHEYNÆUS, lenit acerbum
In Venis ſuccum, nec tibi Membra dolent;
Aut pellit triſtis ſimulacra fugacia ſpectri,
Atque Animo prohibet Gaudia abeſſe tuo;
Maturaque Opera prævertens triſtia Fata
Ægrotare vetat, nec doluiſſe ſinit.

Perlege (at attentus) culti Documenta Libelli,
Si Te vel ſanem vel cupis eſſe probum:
(Arcte etenim ſociata Salus fideliter hæret
Virtuti, Vitio nec Comes eſſe volet)
Diſce Voluptates prudens vitare nocentes;
Hinc diſce & veris innocuiſque frui.
Ut Tibi ſit ſomnus Lenimen dulce Laborum;

Quæ-

Quæque onerant Menſas dulcia Fercla fient
Ut vigeant Artus, nec ſaucia membra labo-
rent ;
Hic Gulæ effrænis Crimina mille lege.
Chirurgi Ferrum Te, & tetrica Pharmaca ter-
rent ?
Hinc diſce ambobus poſſe carere Malis.

A TREA-

A

TREATISE

ON

HEALTH and LONG LIFE.

§. 1. IT is a common saying, That every man past forty is either a fool or a physician: It might have been as justly added, that he was a divine too: For, as the world goes at present, there is not any thing that the generality of the better sort of mankind so lavishly and so unconcernedly throw away as health, except eternal felicity. Most men know when they are ill, but very few when they are well. And yet it is most certain, that 'tis easier to preserve health than to recover it, and to prevent diseases than to cure them. Towards the first, the means are mostly in our own power: little else is required than to bear and forbear. But towards the latter, the means

are perplexed and uncertain; and for the knowledge of them the far greateſt part of mankind muſt apply to others, of whoſe ſkill and honeſty they are in a great meaſure ignorant, and the benefit of whoſe art they can but conditionally and precariouſly obtain. A crazy conſtitution, original weak nerves, dear-bought experience in things helpful and hurtful, and long obſervation on the complaints of others, who come for relief to this univerſal infirmary, BATH, have at laſt (in ſome meaſure) taught me ſome of the moſt effectual means of preſerving health, and prolonging life in thoſe who are tender and ſickly, and labour under chronical diſtempers. And I thought I could not ſpend my leiſure hours better than by putting together the moſt general rules for that purpoſe, and ſetting them in the cleareſt and ſtrongeſt light I could, for the benefit of thoſe who may want them, and yet have not had ſuch favourable opportunities to learn them.

§. 2. And that I might write with ſome order and connexion, I have choſen to make ſome obſervations and reflections on the Non-naturals, (as they are called, poſſibly becauſe that in their preternatural ſtate they are eminently injurious to human conſtitutions; or more probably, becauſe though they be neceſſary to the ſubſiſtence of man, yet in reſpect of him, they may be conſidered as external, or different from the internal cauſes that produce diſeaſes) to wit, 1. The air we breathe in. 2. Our meat and drink. 3. Our ſleep and

and watching. 4. Our exercise and rest. 5. Our evacuations and their obstructions. 6. The passions of our minds, and lastly to add some observations that come not so naturally under any of these heads. I shall not consider here how philosophically these distinctions are made; they seem to me, the best general heads for bringing in those observations and reflections I am to make in the following pages.

§. 3. The reflection is not more common than just, That he who lives physically must live miserably. The truth is, too great nicety and exactness about every minute circumstance that may impair our health, is such a yoke and slavery, as no man of a generous free spirit would submit to. 'Tis as a Poet expresses it, to die for fear of dying. And to forbear or give over a just, charitable, or even generous office of life, from a too scrupulous regard to health, is unworthy of a man, much more of a Christian. But then, on the other hand, to cut off our days by intemperance, indiscretion, and guilty passions, to live miserably for the sake of gratifying a sweet tooth, or a brutal itch; to die martyrs to our luxury and wantonness, is equally beneath the dignity of human nature, and contrary to the homage we owe to the Author of our Being. Without some degree of health, we can neither be agreeable to ourselves, nor useful to our friends; we can neither relish the blessings of divine Providence to us in life, nor acquit ourselves of our duties to our maker, or our

neighbour. He that wantonly tranſgreſſeth the ſelf-evident rules of health, is guilty of a degree of ſelf-murder; and an habitual perſeverance therein is direct ſuicide, and conſequently the greateſt crime he can commit againſt the Author of his Being; as it is ſlighting and deſpiſing the nobleſt gift he could beſtow upon him, viz. the means of making himſelf infinitely happy; and alſo as it is a treacherous forſaking the poſt wherein his wiſdom has placed him, and thereby rendering himſelf incapable of anſwering the deſigns of his providence over him. The infinitely wiſe author of nature has ſo contrived things, that the moſt remarkable rules of preſerving life and health are moral duties commanded us, ſo true it is, that "Godlineſs has the "promiſes of this life, as well as that to "come."

To avoid all uſeleſs refinement, I will lay down only a few plain eaſily obſerved rules, which a man may readily follow, without any trouble or conſtraint.

CHAP.

CHAP. I.

Of AIR.

§. 1. AIR being one of the moſt neceſſary things towards the ſubſiſtence and health of all animals; 'tis a wonder to me, that here in England, where luxury and all the arts of living well, are cultivated even to a vice, the choice of air ſhould be ſo little conſidered.

§. 2. From obſervations on bleeding in rheumatiſms, and after catching cold, 'tis evident, that the air with its different qualities, can alter and quite vitiate the whole texture of the blood and animal juices: From the palſies, vertigoes, vapours, and other nervous affections, cauſed by damps, mines, and working on ſome minerals, († particularly Mercury and Antimony) 'tis plain, air ſo and ſo qualified, can relax and obſtruct the whole nervous ſyſtem. From the cholicks fluxes, coughs, and conſumptions, produced by damp, moiſt and nitrous air, 'tis manifeſt, that it can obſtruct

† Vide Ramazini of the diſeaſes of tradeſmen.

and ſpoil the noble organs. The air is attracted and received into our habit, and mixed with our fluids every inſtant of our lives; ſo that any ill quality in the air, ſo continually introduced, muſt in time produce fatal effects on the animal œconomy: and therefore it will be of the utmoſt conſequence to every one, to take care what kind of air it is they ſleep and watch, breathe and live in, and are perpetually receiving into the moſt intimate union with the principles of life. I ſhall only take notice of three conditions of air.

§. 3. The firſt is, That when gentlemen build ſeats, they ought never to place them upon any high hill, very near any great confluence of water, in the neighbourhood of any great mines, or beds of minerals, nor on any ſwamp, marſhy, or moſſy foundation; but either in a champaign country, or on the ſide of a ſmall eminence, ſheltered from the North and Eaſt winds, or upon a light gravelly Soil. The nature of the ſoil will be well known from the plants and herbs that grow on it, or rather more ſecurely from the nature of the waters that ſpring out of it, which ought always to be ſweet, clear, light, ſoft, and taſteleſs. All high mountains are damp, as Dr. Halley obſerved at St. Helena, a mountaneous place, where damps fell ſo perpetually in the night time, that he was obliged to be every moment wiping his glaſſes, in making his aſtronomical obſervations. And where the mountains are high, the inhabitants of them are forced to ſend their furniture, in winter, to the valley,

leſt

leſt it ſhould rot. And 'tis common to have it rain or ſnow on mountains, when the valleys below are clear, ſerene and dry. All great hills are neſts of minerals, and covers (made of the prominent earth) for reſervoirs of rain-water. The clouds are but great fleeces of rarefied water ſailing in the air, ſometimes not many yards above the champaign country; and theſe high hills intercepting them, they are compreſſed into dew or rain, and are perpetually drilling down the crannies of the mountains into theſe baſons. Hence the origin of rivers, and freſh water ſprings. Beſides that, theſe mountaneous places, are always expoſed to high, and almoſt perpetual winds. Where any great concourſe of water is, the air muſt needs be perpetually damp, becauſe the ſun is perpetually ſtraining from theſe waters, moiſt dews and vapours through it. All great neſts of minerals, or large mines, muſt neceſſarily impregnate the air, with their reſpective qualities. And moſſy blackneſs, is ſome degree of putrefaction, as * Sir Iſaac Newton obſerves.

§. 4. Secondly, the winds that are moſt frequent, and moſt pernicious in England, are the Eaſterly, eſpecially the North Eaſt winds, which in the winter are the moſt piercing cold, in ſummer the moſt parching hot. In Winter they bring along with them, all the nitre of the Northern and Scythian ſnows, moun-

* See his Treatiſe of light and colours.

tains of ice, and frozen ſeas thro' which they come; and in ſummer, blow with all the fiery particles of the perpetual day they paſs thro'. From the end of January, till towards the end of May, the wind blows almoſt perpetually, from the eaſtern and northern points, if the ſpring is dry; and from the ſouthern and weſtern points, if the ſpring is wet, (and generally from the ſetting in of the winds, on a new-moon, you may predict the weather of the ſpring) and our bodies moſt certainly attracting, the circumambient air, and the fumes of thoſe bodies that are next to us, it will be very convenient for valetudinary, ſtudious, and contemplative perſons, in a dry Spring, or in eaſterly winds, to change their bed-chambers into rooms that have weſtern or ſouthern lights, or to ſhut cloſe up the eaſtern and northern lights, or to have them but ſeldom opened; and in wet ſeaſons, to take the contrary courſe. And if any ſuch perſon, has been much expoſed, or long abroad, in a northerly or bleakiſh eaſterly wind, it will be very proper for him to drink down, going to bed, a large draught of warm water-gruel, or of warm ſmall mountain-wine whey, as an antidote againſt the nitrous effluvia, ſucked into the body, and to open the obſtructions of the perſpiration made thereby.

§. 5. Thirdly, from the beginning of November 'till towards the beginning of February, London is covered over with one univerſal nitrous and ſulphurous ſmoak, from the multitude of coal fires, the abſence of that material divinity

divinity the Sun, and the conſequence thereof, the falling of the dews, and vapours of the night. In ſuch a ſeaſon, weak and tender people, and thoſe that are ſubject to nervous or pulmonick diſtempers, ought either to go into the country, or to be at home ſoon after ſun-ſet, and to diſpel the damps with clear, warm fires, and chearful converſation, go early to bed, and riſe proportionably ſooner in the morning; for, as the ſun's removal ſuffers the vapours to fall and condenſe, in the evening, ſo his approach diſpels and raiſes them in the morning. I need not add, that it will be very fit, for thoſe that are valetudinary, to have their ſervants, children, bed-fellows, and all thoſe that approach them, with whom they live conſtantly, and mix atmoſpheres, to be as healthy, ſound and ſweet as poſſibly they can; and, for their own ſakes, to have them removed till they are made ſo, if they are otherwiſe. Nor ſhall I add any preſſing inſtances, to avoid wet rooms, damp beds, and foul linnen, or to remove ordure and nuiſances; the luxury of England having run all theſe rather into a vice.

§. 6. The air is a fluid, wherein parts of all kinds of bodies ſwim as in water. But air differs from water in this, that the firſt is compreſſible into a leſſer compaſs, and ſmaller volume, like a fleece of wool, either by its own weight, or any other force, which weight or force being removed, the air immediately recovers its former bulk and dimenſions again, whereas no force whatever can bring water into

into narrower bounds; that is, air is extremely elaſtick and ſpringy, but water is not at all ſo. Yet the parts of air would ſeem to be groſſer than the parts of water: for water will get through a bladder, and may be forced through the pores of gold; but air will paſs through neither. By this its elaſtick force, the air inſinuates itſelf into the patent cavities of all animal bodies; and the infant, which never breathed before, as ſoon as it is expoſed to this element, has the little bladders, whereof the lungs conſiſt, blown up into a perpendicular erection on the branches of the wine-pipe; whereby the obſtruction, from the preſſure of the veſicles (ariſing from their being compreſſed together, and lying upon one another) being in ſome meaſure taken off, the muſcular action of the right ventricle of the heart is able to force the blood through the lungs into the left ventricle. But theſe little bladders, being thus inflated by an elaſtick fluid, ſtill preſs ſo far upon, and grind the groſſer particles of the blood into more ſizeable ones, that they may become ſmall enough to circulate through the other capillary veſſels of the body. This elaſtick air, preſſing equally every way round, by its weight and ſpring, ſhuts cloſe the ſcales of the ſcarf-ſkin of healthy and ſtrong perſons; ſo that it denies all entrance to the nitrous and watery mixture, contained in it, and thus becomes a kind of cold bath, to them, and defends them from catching cold: But in ſickly, ſtudious, and ſedentary people, and thoſe of weak nerves, where the ſpring of the coverlets and ſcales, that defend the mouths of the per-

perſpiratory ducts is weak, the perſpiration little or next to none at all, and the blood poor and ſizey; the nitrous and watery particles of the air get a ready and free entrance, by theſe ducts into the blood, and by breaking the globules thereof, coagulating and fixing its fluidity, quite ſtop the perſpiration, and obſtruct all the capillary veſſels, the cutaneous glands, and thoſe of the lungs and alimentary paſſages, when ſuch bodies are long expoſed to ſuch an air: And thus begets all theſe diſorders in the body, that air thus and thus poiſoned, was ſhewn capable to produce. So long as the perſpiration is ſtrong, briſk, and full, it is impoſſible any of theſe diſorders ſhould happen; becauſe the force of the perſpiratory ſteams outward, is greater than the force whereby theſe noxious mixtures enter; unleſs the body be indiſcreetly too long expoſed, or the action of the nitrous and watery mixtures be extremely violent. Hence it comes to paſs, that thoſe who are very ſtrong and healthy, and thoſe who have drank ſtrong liquors ſo plentifully, as to have thereby a briſk circulation and full perſpiration, ſeldom or never catch cold. And this is the reaſon why rich foods and generous wines, moderately uſed, become ſo excellent an antidote in infectious and epidemick diſtempers; not only as they baniſh fear and terror, but as they make ſo full and free a ſteam of perſpiration, and maintain ſo active and briſk an atmoſphere, as ſuffers no noxious ſteams or mixtures in the air to come within it; but drives and beats off the enemy to a diſtance But perſons of viſcous, hea-

heavy fluids, of poor and fizey Juices, of little or no perſpiration, ſuch as generally all ſtudious, and ſedentary, and ſickly perſons are, but eſpecially thoſe that are ſubject to nervous diſorders muſt neceſſarily ſuffer under theſe poiſonous mixtures in the air, if they do not cautiouſly and carefully fence againſt them, or take not a preſent remedy and antidote, when tainted For beſides the air that gets through the perſpiratory ducts into the blood, whenever we eat, drink or breathe, we are taking into our bodies, ſuch air as is about us. And when the concoctive powers are weak, as in ſuch perſons, and the quantity of the food is too great, or its quality too ſtrong for them, the chyle is too groſs, and the perſpiratory matter is ſtopped, becauſe too large for theſe ſmall ducts; and this whole maſs, which in common health is more than double of the groſs evacuations, recoils in upon the bowels, and becomes, as it were, ſpears and darts, and armour to the air received from without, which being thus ſharpened with the ſalts of the unconcocted food, together with its own elaſtick force, pierces the ſides of the veſſels, and gets into all the cavities of the body, and between the muſkles and their membranes, and there, in time, brings forth hypochondriack, hyſterick, nervous, and vapouriſh diſorders, and all that black train of evils ſuch conſtitutions ſuffer under.

I ſhall now draw out the cautions here inculcated into a few general rules.

General

General Rules for Health and Long Life, drawn from the Head

Of AIR.

1. THE healthieſt ſituation for a ſeat is in a champaign country, or on the ſide of a ſmall eminence, on a gravelly ſoil, with a Southern or Weſtern expoſition, ſheltered from the North and Eaſt winds, diſtant from any great concourſe of waters, or any great mines or beds of minerals, where the water is ſweet, clear, light, ſoft, and taſteleſs.

2. Tender people on the ſetting in of Eaſterly and Northerly winds, ought to change their bed-rooms for others of Weſterly and Southerly lights, and the contrary in wet ſeaſons.

3. Thoſe who have been much expoſed to, or long abroad in Eaſterly or Northerly winds, ſhould drink ſome thin and warm liquor going to bed.

4. When the dark, dull, foggy weather laſts at London in winter, tender people, and thoſe of weak nerves and lungs, ought either to go into the country, or keep much at home in warm rooms, go early to bed and riſe betimes.

5. Valetudinary people ought to have their

ſervants children, and bedfellows, or thoſe they continually approach and converſe with, ſound, ſweet, and healthy, or ought to remove them until they are ſo, if they are otherwiſe.

6. Every one, in order to preſerve their health, ought to obſerve all the cleanneſs and ſweetneſs in their houſes, cloaths, and furniture, ſuitable to their condition.

CHAP. II.

Of MEAT and DRINK.

§. 1. TO have our food, that is, our meat and drink, as to quantity and quality duly regulated, and precisely adjusted to our concoctive powers, would be of the utmost consequence to health and long life. Our bodies require only a determinate quantity thereof, to supply the expences of living: and a just proportion of that to these would very probably preserve us from acute, most certainly from chronical distempers, and enable us to live, without much sickness and pain, so long as our constitutions were originally made to last. The sources of chronical distempers are first vicidity in the Juices, or the overlargeness of their constituent particles, which not being sufficiently broken, by the concoctive powers, stop or retard the circulation, or, secondly, too great abundance of sharp and acrimonious salts, whereby the juices themselves are rendered so corrosive, as to burst or wear out the solids; or, thirdly, a relaxation, or want of a due force, and springiness, in the solids themselves. An excess in quantity begets the first, the ill condition of our meat and drink the second; and both together,

gether, with want of due labour, the third.

§. 2. The meat of England is generally animal ſubſtances. The animals themſelves, from epidemick cauſes, bad food, age, or other infirmities, have their diſeaſes as well as human creatures: and theſe diſeaſed animals can never be proper or ſound food for men. Adult animals abound more in urinous ſalts than young ones: Their parts are more cloſely compacted, becauſe more forcibly united; and ſo harder of digeſtion. 'Tis true, the great diſtinction of the fitneſs or unfitneſs of the ſeveral ſorts of animals and vegetables for human food, depends upon their original make, frame, and nature (and that can be found out only by experience) as alſo upon the ſpecial taſte, complexion, temperament, and habits of the perſon that feeds on them. But by the help of theſe three principles, viz. That the ſtrength or weakneſs of cohefion of the particle, of fluid bodies, depends upon their bigneſs or ſmallneſs; that is, the biggeſt particles cohere more firmly, than the ſmaller, becauſe more parts come into contact in large bodies than ſmall, and ſo their union is greater. Secondly, that the greater the force [momentum] is, with which two bodies meet, the ſtronger is their cohefion, and the more difficult their ſeparation Thirdly, That ſalts, being comprehended by plain ſurfaces, being hard, and in all changes recovering their figure, unite the moſt firmly of any bodies whatſoever; their plain ſurfaces bring many points into contact and union: their hardneſs and conſtant

ſtant figure make them durable and unalterable; and thereby the active principles, and the origin of the qualities of bodies; and when they approach within the ſphere of one another's activity they firmly unite in cluſters; all which make the ſeparation of their original particles the more difficult. I ſay, from theſe three principles, we may in general compare the eaſineſs or difficulty of digeſting (that is, breaking into ſmall parts) the ſeveral ſorts of vegetables and animals, one with another; and ſo diſcover their fitneſs or unfitneſs for becoming food for tender and valetudinary perſons.

1. All other things being ſuppoſed equal, thoſe vegetables and animals that come to maturity the ſooneſt, are lighteſt of digeſtion. Thus the ſpring vegetables, as aſparagus, ſtraw-berries, and ſome ſorts of ſalading, are more eaſily digeſted than pears, apples, peaches, and nectarines; becauſe they have leſs of the ſolar fire in them; their parts are united by a weaker heat; that is, with leſs velocity, and abound leſs in, nay ſcarce have any ſtrong and fixed ſalts. Among the animals, the common poultry, hares, ſheep, kids, rabbits, &c. who in the ſame, or a few years come to their maturity (that is, to propagate their ſpecies) are much more tender and readily digeſted than cows, horſes, or aſſes, (were theſe laſt in uſe for food, as they have been in famine) &c. for the reaſon already given, becauſe their parts cohere leſs firmly. And it is obſervable, of the vegetables, which

are longeſt a ripening, that is, whoſe juices have moſt of the ſolar rays in them, that their fermented juices yield the ſtrongeſt vinous ſpirits, as grapes, elder-berries, and the like: and of the animals that are longeſt in coming to maturity, that their juices yield the moſt rank and moſt fœtid urinous ſalts.

2. Other things ſuppoſed equal, the larger and bigger the vegetable or animal is, in its kind, the ſtronger and the harder to digeſt is the food made thereof. Thus a large onion, apple, or pear, and large beef and mutton are harder to digeſt than the leſſer ones, of the ſame kind; not only, as their veſſels being ſtronger and more elaſtick, their parts are brought together with a greater force; but alſo, becauſe the qualities are proportionably more intenſe in great bodies of the ſame kind: Thus, other things being equal, a greater fire is proportionably more intenſely hot, than a leſſer one; and the wine contained in a larger veſſel becomes ſtronger than that contained in a leſſer; and conſequently the juices of larger animals and vegetables are more rank than the juices of ſmaller ones of the ſame kind.

3. Other things being equal. The proper food appointed for animals by nature, is eaſier digeſted than the animals themſelves; thoſe animals that live on vegetables, than thoſe that live on animals; thoſe that live on vegetables or animals, that ſooneſt come to maturity, than thoſe that live on ſuch as are longer

er a ripening. Thus milk and eggs are lighter of digeſtion than the fleſh of beaſts or birds; pullets and turkies, than ducks and geeſe; and partridge, and pheaſant are lighter than woodcock or ſnipe; becauſe theſe laſt, being long billed, ſuck only animal juices; and for the reaſons already given, graſs beef and mutton are lighter than ſtall fed oxen and ſheep.

4. All things elſe being alike, fiſh and ſea animals are harder to digeſt than land animals; becauſe univerſally their food is other animals, and the ſalt element in which they live compacts their parts more firmly; ſalts having a ſtronger power of coheſion than other bodies. And for the ſame reaſon, ſalt water fiſh is harder to digeſt than freſh water. Thus the ſea tortoiſe is harder to digeſt than the land tortoiſe; and ſturgeon and turbit, than trout or perch.

5. Other things being equal, Vegetables and animals that abound in an oily, fat, and glutinous ſubſtance, are harder to digeſt, than thoſe of a dry, fleſhy fibrous ſubſtance; becauſe oily and fat ſubſtances elude the force and action of the concoctive powers; and their parts attract one another, and unite more ſtrongly than other ſubſtances do, (except ſalts) as Sir Iſaac Newton* obſerves. Their ſoftneſs

* Vide Sir Iſaac Newton's firſt Engliſh Edition of light and colours.

neſs and humidity relaxes and weakens the force of the ſtomach, and the fat and oil itſelf is ſhut up in little bladders, that are with difficulty broken. Thus nuts of all kinds paſs through the guts, almoſt untouched: olives are harder to digeſt than peaſe; fat fleſh meat, than the lean of the ſame. Carp, tench, ſalmon, eel, and turbit, are much harder to digeſt than whiting, perch, trout, or Haddock.

6. Vegetables and animals, all things elſe being alike, whoſe ſubſtance is white, or inclining to the lighter colours, are lighter to digeſt, than thoſe whoſe ſubſtance is redder, browner, or inclining towards the more flaming colours; not only becauſe the parts that reflect white, and the lighter colours are leſſer in bulk than thoſe that reflect the more flaming colours†; but alſo becauſe thoſe of the more flaming colours abound more with urinous ſalts. Thus turnips, parſnips, and potatoes, are lighter than carrots, ſkirrets, and beet-raves. Pullet, turkey, pheaſant, and rabbit, are lighter than duck, geeſe, woodcock, and ſnipe. Whiting, flounder, perch, and ſoal, are lighter than ſalmon, ſturgeon, herring, and mackarel. Veal and lamb is lighter than red or fallow deer.

7. Laſtly, All other things being equal, vegetables

† See the juſt quoted author.

vegetables and animals of a ſtrong, poignant, aromatick and hot taſte, are harder to digeſt than thoſe of a milder, ſofter, and more inſipid taſte. High reliſh comes from abundance of ſalts: abundance of ſalts ſuppoſes adult animals, and ſuch as are long a coming to maturity; and where ſalts abound, the parts are more difficultly ſeparated, and harder to be digeſted. Strong and aromatick plants imbibe and retain moſt of the ſolar rays, and become ſolid ſpirits, or fixed flames. And they that deal much in them ſwallow ſo much live-coals, which will at laſt inflame the fluids and burn up the ſolids.

§. 3. There is nothing more certain, than that the greater ſuperiority the concoctive powers have, over the food, or the ſtronger the concoctive powers are, in regard of the things to be concocted; the finer the chyle will be, the circulation more free, and the ſpirits more lightſome; that is, the better will the health be. Now from theſe general propoſitions, taken in their own particular complexion and habits, valetudinary, ſtudious, or contemplative perſons may eaſily fix upon the particular vegetable or animal foods, that are fitteſt for them. And if any error ſhould be committed, 'tis beſt to err on the ſafeſt ſide, and rather chuſe thoſe things that are under our concoctive powers, than thoſe that are above them. And in the choice of animals for our food, we muſt not paſs over the manner of fattening and fitting them up for the table. About London we can ſcarce have any, but

cram-

crammed poultry, or ſtall-fed butchers meat. It were ſufficient to diſguſt the ſtouteſt ſtomach, to ſee the foul, groſs, and naſty manner, in which, and the fetid, putrid and unwholeſome materials, with which they are fed. Perpetual foulneſs and cramming, groſs food and naſtineſs, we know, will putrify the juices and mortify the muſcular ſubſtance of human creatures; and ſure they can do no leſs in brute animals, and thus make even our food poiſon. The ſame may be ſaid of hot beds, and forcing plants and vegetables. The only way of having ſound and healthful animal food, is to leave them to their own natural liberty, in the free air, and their own proper element, with plenty of food, and due cleanlineſs, and a ſhelter from the injuries of the weather, when they have a mind to retire to it. I add nothing about cookery: plain roaſting and boiling is as high, as valetudinary, tender, ſtudious, and contemplative perſons, or thoſe who would preſerve their health, and lengthen out their days, ought to preſume on. Made diſhes, rich ſoop, high ſauces, baking, ſmoaking, ſalting, and pickling, are the inventions of luxury, to force an unnatural appetite and encreaſe the load, which nature, without incentives from ill habits, and a vicious palate, will of itſelf make more than ſufficient for health and long life. Abſtinence and proper evacuations, due labour and exerciſe, will always recover a decayed appetite, ſo long as there is any ſtrength and fund in nature to go upon. And 'tis ſcarce allowable to provoke an appetite, with medicinal helps, but where:

where the digeſtive faculties have been ſpoiled and ruined by acute or tedious chronical diſtempers. And as ſoon as 'tis recovered to any tolerable degree, nature is to be left to its own work, without any ſpurs from cookery or phyſic.

§. 4. The next conſideration is the quantity of food that is neceſſary to ſupport nature, without overloading it, in a due plight: that is indeed various, according to the age, ſex, nature, ſtrength, and country the party is of, and the exerciſe he uſes. In theſe northern countries, the coldneſs of the air, the ſtrength and large ſtature of the people, demand larger ſupplies than in the eaſtern and warmer countries. Young growing perſons, and thoſe of great ſtrength and large ſtature, require more than the aged, weak, and ſlender. But perſons of all ſorts will live more healthy and longer by univerſal temperance, than otherwiſe. And ſome general obſervations on the quantity perſons of different nations and conditions, have lived on, healthy, and to a great age, may give ſome aſſiſtance to valetudinary and tender perſons, to adjuſt the due quantity neceſſary for them.

§. 5. It is ſurpriſing, to what a great age the eaſtern chriſtians, who retired from the perſecutions into the deſarts of Egypt and Arabia, lived healthful on a very little food. We are informed by Caſſian, that the common meaſure in twenty four hours, was about twelve ounces or a pound, (for the eaſtern pound was but twelve ounces) with mere ele-

element for drink. St. Anthony lived to 105 years, on mere bread and water, adding only a few herbs at laſt. James the hermit, to 104. Arſenius, the tutor of the Emperor Arcadius, to 120: 65 in the world, and 55 in the deſart. St. Epiphanus, to 115. St. Jerome, to about 100. Simeon Stylites, 109. And Romualdus, 120. And Lewis Cornaro, a Venetian nobleman, after he had uſed all other remedies in vain, ſo that his life was deſpaired of at 40, yet recovered and lived, by the mere force of temperance, near to 100 years.

§. 6. Our Northern climate, as I ſaid from the purity and coldneſs of the air, which bracing the fibres, makes the appetite keener, and the action of digeſtion ſtronger; and from the labour and ſtrength of the people, which makes the expences of living more, will neceſſarily require a greater quantity of food. Yet it is wonderful in what ſprightlineſs, ſtrength, activity, and freedom of ſpirits, a low diet, even here, will preſerve thoſe that have habituated themſelves to it. Buchanan informs us, of one Laurence who preſerved himſelf to 140, by the mere force of temperence and labour. Spotſwood mentions one Kentigern (afterwards called St. Mongah, or Mungo, from whom the famous well in Wales is named) who lived to 185 years, tho' after he came to the years of underſtanding, he never taſted wine nor ſtrong drink; and ſlept on the cold ground. My worthy friend Mr. Web, is ſtill alive. He by the quickneſs of the faculties of the mind, and the activity of the organs

organs of his body, shews the great benefit of a low diet, living altogether on vegetable food and pure element. The history of the milk * Doctor of Croydon, who by living on milk only, cured himself of an otherwise incurable distemper, viz. the Epilepsy, and lived in perfect health for sixteen years after, till an accident cut him off, I have already narrated in my treatise of the gout. Henry Jenkins a fisherman, lived 169 years, his diet was coarse and sower, as his historian informs us, that is, plain and cooling, and the air where he lived sharp and clear, viz. Alerton upon Swale in Yorkshire. Parr died sixteen years younger, viz. at the age of 152 years, 9 months; his diet was old cheese, milk, coarse bred, small-beer and whey: and his historian tells us, he might have lived a good while longer, if he had not changed his diet and air, coming out of a clear, thin, free air, into the thick air of London, and after a constant, plain, and homely country diet, being taken into a splendid family, where he fed high, and drank plentifully of the best wines, whereby the natural functions of the parts were overcharged, and the habit of the whole body quite disordered; upon which there could not but soon ensue a dissolution. † Dr. Lister mentions eight persons in the North of England, the youngest of which was above 100 years, and the eldest 140. He says, 'tis to be observed,

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* See an Essay on the Gout and Bath Waters.
† See Abr. of philos. transact. by Lowth.

that the food of all this mountaneous country is exceedingly coarſe. And certainly there is no place in the world more likely to lengthen our life than England, eſpecially thoſe parts of it, that have a free open air, and a gravelly and chalky ſoil, if to due exerciſe, abſtemiouſneſs, and a plain ſimple diet were added.

§. 7. I have † elſewhere offered to determine the quantity of food, ſufficient to keep a man of an ordinary ſtature, following no laborious employment, in due plight, health, and vigour; to-wit, 8 ounces of fleſh meat, 12 of bread, or vegetable food, and about a pint of wine, or other generous liquor in 24 hours But the valetudinary, and thoſe employed in ſedentary profeſſions, or intellectual ſtudies, muſt leſſen this quantity, if they would preſerve their health, and the freedom of their ſpirits long. Studious and ſendentary men muſt of neceſſity eat and drink a great deal leſs, than thoſe very ſame men might do, were they engaged in an active life. For as they want that exerciſe that is neceſſary towards concoction and perſpiration, and that their nerves are more worn out by intellectual ſtudies, than even bodily labour would waſte them; if, in any wiſe, they indulge freedom of living, their juices muſt neceſſarily become viſcid, and their ſtomachs relaxed. He that would

† See the Eſſay of the Gout and Bath Waters.

would have a clear head muſt have a clean ſtomach. The neglect of which is the cauſe why we ſee ſo many hypochondriacal, melancholy, and vapouriſh gentlemen, among thoſe of the long robe; the only remedy of which is labour and abſtinence.

§. 8. Moſt of all the chronical diſeaſes, the infirmities of old age, and the ſhort periods of the lives of Engliſhmen, are owing to repletion. This is evident from hence; becauſe evacuation of one kind or another is nine parts of ten in their remedy: for not only cupping, bleeding, bliſtering, iſſues, purging, vomiting, and ſweating, are manifeſt evacuations, or drains to draw out what has been ſuperfluouſly taken down; but even abſtinence, exerciſe, alteratives, cordials, bitters, and alexipharmicks, are but ſeveral means to diſpoſe the groſs humours to be more readily evacuated by inſenſible perſpiration; that new and well concocted chyle, and ſweet comminuted juices, may take their place to reſtore the habit. And therefore it were much more eaſy, as well as more ſafe and effectual, to prevent than incur the neceſſity of ſuch evacuations. And any one may loſe a pound of blood, take a purge, or ſweat; by dropping the great meal, or abſtaining from animal food and ſtrong liquors, for four or five days (in chronical caſes) as effectually as by opening a vein, ſwallowing a doſe of pills, or taking a ſudorifick bolus.

§. 9. I adviſe therefore all gentlemen of a

ſendentary life, and of learned profeſſions, to uſe as much abſtinence as poſſible they can, conſiſtent with the preſervation of their ſtrength and freedom of ſpirits: which ought to be done as ſoon as they find any heavineſs, inquietudes, reſtleſs nights, or averſion to application; either by leſſening one half of their uſual quantity of animal food and ſtrong liquors, 'till ſuch time as they regain their wonted freedom and indolence; or by living a due time wholly upon vegetable diet, ſuch as ſago, rice, pudding, and the like, and drinking only a little wine and water. And if they would preſerve their health and conſtitution, and lengthen out their days; they muſt either inviolably live low (or meagre, as the French call it), a day or two in the week; or once a week, fortnight, or month at fartheſt, take ſome domeſtick purge, which ſhall require neither diet, nor keeping at home; but may at once ſtrengthen the bowels, and diſcharge ſuperfluous humours, Of this kind are a doſe (6 or 7) of the Scotch pills; half a drachm of the Pilulæ Stomachicæ cum Gummi, with three or four grains of Diagryd, mixt; half a drachm of the Pilulæ Ruffi; two ounces of Hiera Piera, with one drachm of the ſyrup of Buckthorn; two or three ounces of Elixir Salutis; or (what I prefer before all theſe) this preparation of rhubarb:

Take the beſt rhubarb in powder two ounces and a half; ſalt of wormwood a drachm; orange peel half an ounce; grated nutmeg two ſcruples; chochineal, half a drachm.

drachm. Infuſe 48 hours by a warm fire-ſide, in a quart of true arrack. Strain it off, and put it in a well corked bottle for uſe.

Of this two or three ſpoonfuls may be taken, two or three times a week, or at pleaſure, with great ſafety and benefit, without interruption of buſineſs, or ſtudies, and continued even to mature old age, if found neceſſary. So true is old Verulam's aphoriſm: * 'Nihil magis conducit ad ſanitatem & longævitatem quam crebræ & domeſticæ purgationes.' And the gentlemen of the long robe, thoſe of learned profeſſions and contemplative ſtudies, muſt of neceſſity at laſt take Sir Charles Scarborough's advice, as 'tis ſaid, to the Ducheſs of Portſmouth: 'You muſt eat leſs, or uſe more exerciſe, or take phyſick, or be ſick.'

§. 10. Thoſe who have written about health have given many rules, whereby to know when any perſon has exceeded at meal: I think, there needs but this ſhort one, which is; if any man has eat or drank ſo much, as renders him unfit for the duties and ſtudies of his profeſſion (after an hour's ſitting quiet to carry on the digeſtion;) he has over-done. I mean only of thoſe of learned profeſſions and ſtudious lives; for thoſe of mechanical em-

* Nothing contributes more to health and long life, than frequent family purges.

ployments muſt take the body, the other part of the compound, into conſideration. If tender people, and thoſe of learned profeſſions would go by this rule, there would be little uſe for phyſick or phyſicians in chronical caſes. Or if they would but eat only one part of animal food, at the great meal, and make the other two of vegetable food; and drink only water, with a ſpoonful of wine, or clear ſmall-beer; their appetites would be a ſufficient rule to determine the quantity of their meat and drink. But variety of diſhes, the luxurious artfulneſs of cookery, and ſwallowing rich wine after every bit of meat, ſo lengthen out the appetite; the fondneſs of mothers, and the cramming of nurſes have ſo ſtretched the capacities of receiving, that there is no ſecurity from the appetite among the better ſort. 'Tis amazing to think how men of voluptuouſneſs, lazineſs, and poor conſtitutions, ſhould imagine themſelves able to carry off loads of high-ſeaſoned foods, and inflammatory liquors, without injury or pain; when men of mechanick employments, and robuſt conſtitutions, are ſcarcely able to live healthy and in vigour to any great age, on a ſimple, low, and almoſt vegetable diet.

§. 11. Since then our appetites are deceitful, and weight and meaſure troubleſome and ſingular; we muſt have recourſe to a rule independent of our ſenſations, and free from unneceſſary trouble and pain. To anſwer which, I know nothing but eating and drinking by our eye: that is, determining firſt of all either by weight

weight or meaſure, or by particular obſervation or experiment, the bulk, or number of mouthfuls of fleſh meat and the number of glaſſes of ſtrong liquors, under which we are beſt; and then by our eye determining an equal quantity at all times for the future: thus the two wings of a middling pullet, or one wing and both legs; three ribs of a middling neck of mutton, two middling ſlices of a leg or ſhoulder, throwing away the fat and the ſkin; ſomewhat leſs of beef, may be ſufficient of fleſh meat, at the great meal. For we are ſo wiſely contrived, that our food need not be adjuſted to mathematical points: a little over or under will make no difference in our health. As for pork, and all kinds of hog's fleſh, I think they ought to be forbidden valetudinary and ſtudious people, as they were the Jews: they feed the fouleſt of any creature, and their juices are the rankeſt; their ſubſtance the moſt ſurfeiting, and they are the moſt ſubject to cutaneous diſeaſes and putrefaction, of any creature; inſomuch, that in the time of a plague, or any epidemical diſtemper, they are univerſally deſtroyed by all wiſe nations, as the ſouthern people do mad dogs in the hot months. The ſame cenſure I ſhould paſs upon all fiſh. Moſt fiſh live in a ſaltiſh element, and come only into freſh water rivers, for the quietneſs and conveniency of bringing forth their young ones. This makes their parts more cloſely united and harder of digeſtion. Beſides, as I have before obſerved, they feed upon one another, and their juices abound with a ſalt that corrupts the blood, and breeds

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chronical diſeaſes. And 'tis always obſervable, that thoſe who live much on fiſh are infected with the ſcurvy, cutaneous eruptions, and other diſeaſes of a foul blood. And every body finds himſelf more thirſty and heavy than uſual after a full meal of fiſh, let them be ever ſo freſh; and is generally forced to have recourſe to ſpirits and diſtilled liquors to carry them off: ſo that it is become a proverb, among thoſe that live much upon them, that brandy is latin for fiſh. Beſides, that after a full meal of fiſh, even at noon, one never ſleeps ſo ſound the enſuing night; as is certain from conſtant obſervation. Theſe few hints may ſerve the valetudinary perſon, in a groſs manner to judge by the eye the quantity of ſolid fleſh meat he takes or ought to take down: for I judge the mentioned quantities to be rather a little under than over eight ounces. As to broths, ſoops, and jellies, if they be ſtrong, I account them equal in nouriſhment and harder to digeſt than the ſame weight of ſolid fleſh meat; and three or four common ſpoonfuls, at moſt, make an ounce in weight in liquids; and about double the number of bits commonly ſwallowed at once make the ſame weight in ſolid fleſh meat; for exactneſs is not here requiſite.

§. 12. Drink is the other part of our food. The common drink here in England is either water, malt-liquor, or wine, or mixtures of theſe; for cyder and perry are drank but in few places, and rather for pleaſure and variety than common uſe. Without all peradventure, water

water was the primitive, original beverage, as it is the only ſimple fluid (for there are but three more in nature, mercury, light, and air, none of which is fit for human drink) fitted for diluting, moiſtening and cooling; the ends of drink appointed by nature. And happy had it been for the race of mankind other mixt and artificial liquors had never been invented. It has been an agreeable appearance to me to obſerve, with what freſhneſs and vigour, thoſe who, tho' eating freely of fleſh meat, yet drank nothing but this element, have lived in health, indolence, and chearfulneſs, to a great age. Water alone is ſufficient and effectual for all the purpoſes of human wants in drink. Strong liquors were never deſigned for common uſe: They were formerly kept (here in England) as other medicines are, in apothecaries ſhops, and preſcribed by phyſicians, as they do diaſcórdium and venice-treacle; to refreſh the weary, to ſtrengthen the weak, to give courage to the faint-hearted, and raiſe the low-ſpirited; and it were as juſt and reaſonable to ſee men (and if they go on, it is not impoſſible I may hear of it, ſince laudanum is already taken into feaſts and entertainments) ſit down to a diſh of venice-treacle, or Sir Walter Rawleigh's confection, with a bottle of hyſterick cordial, as to a diſh of craw-fiſh ſoop, an ox-cheek or veniſon-paſty, with a bottle of hermitage, or tockay, or which ſome prefer to either of them, a bowl of Punch. Wine is now become as common as water; and the better ſort ſcarce ever dilute their food with any other liquor. And we ſee, by daily ex-

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perience, that (as natural cauſes will always produce their proper effects) their blood becomes inflamed into gout, ſtone, and rheumatiſm, raging fevers, pleuriſies, ſmall-pox, or meaſles; their paſſions are enraged into quarrels, murder, and blaſphemy; their juices are dried up; and their ſolids ſcorched and ſhriveled. Thoſe whoſe appetite and digeſtion is good and entire, never want ſtrong liquors to ſupply ſpirits: ſuch ſpirits are too volatile and fugative for any ſolid or uſeful purpoſes in life. Two ounces of fleſh meat, well digeſted, beget a greater ſtock of more durable and uſeful ſpirits, than ten times as much ſtrong liquors, which nothing but luxury and concupiſcence makes neceſſary. Happy thoſe, whom their parents, their natural averſion to ſtrong liquors, or whom kind Providence among the better ſort, has brought to the age of maturity and diſcretion, without dealing in or deſiring any great quantity of ſtrong liquors: their paſſions have been calmer, their ſenſations more exquiſite, their appetites leſs unruly, and their health more uninterrupted, than any other natural cauſe could have produced. And thrice happy they, who continue this courſe to their laſt minutes. Nothing is more ridiculous than the common plea for continuing in drinking on, large quantities of ſpirituous liquors; viz. Becauſe they have been accuſtomed ſo to do, and they think it dangerous to leave it off, all of a ſudden. It were as reaſonable for him that is fallen into the fire or water to lie there, becauſe of the danger of removing him ſuddenly. For neither element will deſtroy him

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more certainly, before his time, than wallowing in ſtrong liquors. If the quantity of ſtrong liquors they have been accuſtomed to, may be ſuppoſed prejudicial to their health, or to introduce noxious humours into the habit; the ſooner a ſtop be put to it, the better. No man is afraid to forbear ſtrong liquors in an acute diſtemper, what quantity ſoever he might have drank in his health: and yet any ſudden change of the humours would not only be more dangerous then, than at any other time; but alſo would more readily happen and come to paſs, in ſuch critical caſes. For the whole ſyſtem of the fluids, being in a fermentation, ſmall changes of errors then, would not only be more fatal, but more plain and obvious. And if a perſon be in hazard by ſuch a ſudden alteration, he cannot live long by taking down ſo much poiſon. But the matter of fact is falſe and groundleſs. For I have known and obſerved conſtant good effects from leaving off ſuddenly great quantities of wine and fleſh meats too, by thoſe long accuſtomed to both, am ready to name the perſons, and never obſerved any ill conſequence from it in any caſe whatſoever. Thoſe whoſe conſtitutions have been quite broken, and running into diſſolution, have lived longer, and been leſs pained in ſickneſs by ſo doing: and thoſe who have had a fund in nature to laſt longer, have grown better, and attained their end by it. I allow every man, that has been accuſtomed to drink wine, or ſtrong liquors a pint in 24 hours: and I am well ſatisfied, that quantity is ſufficient for health, let their cuſtom have been

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what it will. Their ſpirits may indeed flag and ſink a little at firſt, for want of introduced quicklime and fire. But low-ſpiritedneſs, in ſuch a caſe, I count no diſeaſe. And bearing it for ſome time, is bountifully recompenced by the health, indolence, and freedom of ſpirits, they afterwards enjoy: not taking into conſideration their being reſcued from the tyranny of ſo immoral and miſchievous a habit. It may be ſufficient for thoſe who are tender, ſtudious, or contemplative, to drink three glaſſes of water with a ſpoonful of wine at the great meal. And as Sir W. Temple has it, One for yourſelf, another for your friends, a third for good humour, and a fourth for your enemies, are more than ſufficient after it.

§. 13. A great miſtake committed in this affair is, that moſt people think the only remedy for gluttony is drunkenneſs, or that the cure of a ſurfeit of meat is a ſurfeit of wine: than which nothing can be more falſe, or contrary to nature; for, 'tis lighting the candle at both ends. For, firſt of all, wine and all other ſtrong liquors are as hard to digeſt, and require as much labour of the concoctive powers, as ſtrong food itſelf. This is not only evident with reſpect to people of weak ſtomachs, but alſo from hence, that healthy people who drink only water, or weak ſmall-beer, ſhall be able to eat and digeſt almoſt double of what they could, did they drink ſtrong liquors at their meals, as every one that pleaſes may experience. Water is the only univerſal diſſolvent or menſtruum, and the

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moſt certain diluter of all bodies proper for food; though there are a great many that ſpirituous liquors not only will not diſſolve, but will harden, and make more indigeſtible; eſpecially the ſalts of bodies, wherein their active qualities, that is, thoſe which can do moſt harm to human conſtitutions, conſiſt. And I have known men of weak and tender conſtitutions, who could neither eat nor digeſt upon drinking of wine, who, by drinking at meals common water heated, have recovered their appetites and digeſtion, have thriven and grow plump. It is true ſtrong liquors, by their heat and ſtimulation on the organs of concoction, by encreaſing the velocity of the motion of the fluids, and thereby quickening the other animal functions, will carry off the load that lies upon the ſtomach, with more preſent chearfulneſs: yet, beſides the future damages of ſuch a quantity of wine, to the ſtomach and to the fluids, by its heat and inflammation, the food is hurried into the habit, unconcocted, and lays a foundation for a fever, a fit of the cholick, or ſome chronical diſeaſe.

§. 14. Another miſtake I ſhall obſerve, is the extreme fondneſs perſons of the better ſort here in England, have lately run into, for the ſtrong and high country wines. I can think of no reaſon for this, but the very honeſt one the vulgar give for drinking brandy: that they get ſooner drunk on it. For ſurely the middling lighter wines, inflame the animal juices leſs, go more eaſily off the ſtomach, and afford more room for long converſation and

chearfullneſs. Exceſs in them, gives leſs pain, and is ſooner remedied. But there are degrees in this matter. * 'Nemo repente fuit turpiſſimus.' They begin with the weaker wines; theſe by uſe and habit will not do, they leave the ſtomach ſick and mawkiſh, they muſt fly to ſtronger wine, and ſtronger ſtill, and run the † climax, through brandy to Barbadoes waters, and double diſtilled ſpirits, 'till at laſt they can find nothing hot enough for them. People who have any regard for their health and lives, ought to tremble at the firſt cravings, for ſuch poiſonous liquors. Strong waters ſhould never be taken but by the direction of a phyſician, or in the agonies of death. For when perſons arrive at that ſtate, that they become neceſſary to their eaſe and freedom of ſpirits; they may be juſtly reckoned among the dead, both as to the ſhort time they have to live, and the little uſe they can be of, either to themſelves or mankind. I ſpeak not here of thoſe who are under an actual fit of the gout, or cholick in the Stomach. (We muſt not die for fear of dying.) Nor am I recommending ſour verjuice or unripe wines. But I cannot help being well ſatisfied, both from reaſon and experience, that the light wines, of a moderate ſtrength, due age, and full maturity, are much preferable for chearfulneſs and converſation, much more wholſome for human conſtitu-

* No body becomes extremely bad all at once.
† Riſe higher by degrees.

ſtitutions, and much more proper for digeſtion than the hot and ſtrong wines. The rich, ſtrong, and heavy wines ought never to be taſted without a ſufficient dilution of water; at leaſt they ſhould be uſed, like brandy or ſpirits, for a cordial *. 'Ad ſummum tria pocula ſume.'—Whatſoever is more cometh of ſin, and muſt be diluted with the waters of repentance.

§. 15. I have no intention here to diſcourage the innocent means of enlivening converſation, promoting friendſhip, comforting the ſorrowful heart, and raiſing the drooping ſpirits, by the chearful cup and the ſocial repaſt. Perhaps I may like the harmleſs frolick, the warm reception of a friend, and even the † Dulce Furere itſelf, more than I ought: perſons ſober in the main, will receive little prejudice from ſuch a fillip, when the occaſions happen but ſeldom, and eſpecially when they make it up, by a greater degree of abſtinence afterwards. But a ſot is the loweſt character in life. Did only the profligate, the ſcoundrel, the abandoned, run into theſe exceſſes, it were in vain to endeavour to reclaim them, as it were, to ſtop a tempeſt, or calm a ſtorm. But now that the vice is become epidemical,

* i. e. At moſt to take but three ſmall glaſſes of ſuch.

† Horat. i. e. An agreeable frolick or extravagance.

ſince it has got not only among mechanicks and tradeſmen, but among perſons of the brighteſt genius, the fineſt taſte, and the moſt accompliſhed parts; and (oh that I could give my conſcience the lye, in mentioning them!) even among the firſt and leaſt fallen part of the creation itſelf, and thoſe of them too, of the moſt elegant parts, and the ſtricteſt virtue otherwiſe; and which is ſtill the moſt ſurprizing of all, even thoſe too, who are in all other reſpects blameleſs. Since I ſay the caſe is ſo, it will not be amiſs to ſhew, to the evidence of a demonſtration, the folly as well as fruitleſſneſs of ſuch a courſe. A fit of the cholick, or of the vapours, a family misfortune, a caſual diſappointment, the death of a child, or of a friend, with the aſſiſtance of the nurſe, the midwife, and next neighbour, often give riſe and become the weighty cauſes of ſo fatal an effect. A little lowneſs requires drops, which paſs readily down under the notion of phyſick; drops beget drams, and drams beget more drams, 'till they come to be without weight or meaſure; ſo that at laſt the miſerable creature ſuffers a true martyrdom, between its natural modeſty, the great neceſſity of concealing its cravings, and the ſtill greater one of getting them ſatisfied ſome how. Higher and more ſevere fits of hyſtericks, tremors, and convulſions, begot by theſe, bring forth farther neceſſity, upon neceſſity, of drops, drams, and gills, 'till at laſt a kind dropſy, nervous convulſions, a nervous attrophy, or a colloquative Diarrhæa, if not a fever, or a frenzy, ſets the poor ſoul free. It has very often

ten raiſed in me the moſt melancholy reflections, to ſee even the virtuous, and the ſenſible bound in ſuch chains and fetters, as nothing leſs than omnipotent grace, or the unrelenting grave could releaſe them: they were deaf to reaſon and medicine, to their own experience, and even to the expreſs words of ſcripture, that ſays, the "Drunkard ſhall "not inherit the Kingdom of Heaven." Did this bewitching poiſon actually cure or relieve them, from time to time, ſomething might be ſaid to extenuate the folly and frenzy of ſuch a courſe. But, on the contrary, it heightens and enrages all their ſymptoms and ſufferings, ever afterwards, excepting the few moments immediately after taking it down; and every dram begets the neceſſity of two more, to cure the ill effects of the firſt; and one minutes indolence they purchaſe with many hours of greater pain and miſery; beſides the making the malady, more incurable. Low-ſpiritedneſs in itſelf is no diſeaſe; beſides that there are remedies in art that will always relieve it, ſo long as there is any oil remaining in the lamp; and it is in vain to try to raiſe the dead; exerciſe, abſtinence, and proper evacuations, with time and patience, will continually make it tolerable, very often they will perfectly cure it. The running into drams is giving up the whole at once; for neither laudanum nor arſenick will kill more certainly, although more quickly. The pretence of its being phyſick, or a preſent remedy, is trifling. Cordials of any kind, even out of the apothecaries ſhops, are but reprieves for a time, to

gain a reſpite, 'till proper and extirpating remedies can take place; and are never to be uſed twice, the one immediately after the other, but in the laſt neceſſity. And I can honeſtly ſay, I never failed of relieving, ſo as to make life tolerable, vapouriſh, hyſterical, or hypochondriacal perſons, who would be governed in their diet, by the uſe of other proper means, if there was a fund in life, and no incurable diſeaſe, complicated with lowneſs. Thus much the weight of the ſubject forced from me more than this, its diſagreeableneſs hinders me to ſay.

§. 16. Next to drams, no liquor deſerves more to be ſtigmatized and baniſhed the repaſts of the tender, valetudinary, and ſtudious than punch. It is a compoſition of ſuch parts, as not one of them is ſalutary, or kindly to ſuch conſtitutions, except the pure element in it. The principal ingredient is, rum, arrack, brandy, or malt ſpirits, as they are called, all of them raiſed by the fire, from the fermented juices of plants, brought from ſouthern countries, or which have longeſt born the heat of the ſun in our own climate: and it is obſervable, that every thing that has paſſed the fire, ſo that it has had due time to divide and penetrate its parts, as far as it poſſibly can, retains a cauſtick, corroſive, and burning quality ever afterwards. This is evident from the fiery and burning touch and taſte of new-drawn ſpirits, as alſo from the burning of lime-ſtone, which, though extinguiſhed by boiling water, does ever after retain its heating;

ing and drying quality, as appears from the great uſe of lime water, in drying up all humid ſores, when given inwardly by itſelf, or compounded with ſudorifick woods and roots, and from its ſucceſs in outward applications for the ſame purpoſes. And though time may in ſome meaſure get the better of this, in its ſenſible and obvious operations; yet ſince water is a groſſer body than fire, or flame, it never can penetrate it ſo far as quite to extinguiſh its inmoſt heat; eſpecially if we conſider, that ſpirits are but an accumulation of fine ſalts and light oil, compacted together into the ſmalleſt volume; the firſt whereof is ſo hard and ſolid, as naturally to retain their heat the longeſt, into which water cannot enter; the other, to wit the oil, is ſo inflamable, that it moſt readily receives heat and fire, and defends the ſalts from the power of the water over them. And in the continued diſtillation of ſpirits, this action of the fire is ſo ſtrong, as to reduce them to liquid flames at laſt, which will of themſelves evaporate in viſible flames and fumes. The other principal part of the compoſition is the juice of oranges and lemons. And if we conſider, that a lemon or orange could never be tranſported half ſeas over to us, without rotting or ſpoiling; if gathered when wholly ripe, we ſhould have no great opinion of their juices. Every Spaniſh or Portugal merchant can inform us, that they muſt be gathered green, or at leaſt a month before they are ripe, elſe they are not fit to be ſent beyond the ſeas. The ſea air, and their being ſhut up cloſe, gives them that golden yel-

low

low colour, we ſo much admire. The juice of a crab apple, of unripe grapes, or gooſeberries, or even good juice of ſorrel, would come up at leaſt to their virtue of extinguiſhing the heat of ſpirits, if not to their flavour. And how kindly a gueſt ſuch juices would be to the fine fibres of weak ſtomachs and bowels, I leave every one to judge. The truth is, all fermenting juices, ſuch as theſe eminently are, muſt be highly injurious to weak conſtitutions; for meeting with the crudities in the bowels, they muſt raiſe a new battle and colluctation there, and ſo muſt blow up the whole cavities of the human body, with acrid fumes and vapours, the great and ſore enemies of ſuch bowels. And in the Weſt Indies, where from the neceſſity of drinking much, becauſe of the violence of the heat, and from the want of proper liquors there, they are forced to drink much punch, tho' lemons and oranges be in their full perfection, they are univerſally afflicted with nervous and mortal dry belly-aches, palſies, cramps, and convulſions; which cut them off in a few days, entirely owing to this poiſonous mixture.

The bath-water, is the only remedy in ſuch caſes, whither they all haſten, if they can get thither alive. And here I have been informed of this fact, by men of the profeſſion, as well as their patients, who univerſally aſcribed them to their drinking of punch and ſpirituous liquors. If acids muſt be had, without all peradventure, the vinous ones, are the beſt and ſafeſt. The Romans, though they had

had the vegetable acids in perfection, made very little uſe of them but in cookery, where the quantity of the poiſon was ſo ſmall, as not to do ſufficient harm, to forbid their uſing them for the ſake of the exquiſite reliſh they gave their ſauces; and the conſtant drink of the lower ſoldiery, was vinegar and water, which they found of exceilent uſe, both as it prevented fevers, plagues, and putrefaction, and alſo as it gave an energy to the unactive element, and hindered it from lodging in the body. Hence alſo the great uſe of Oxymel and Oxycrate, (that is, of vinegar with honey and with water) among all the ancient phyſicians And indeed, whenever they preſcribed an acid, they very prudently joined a corrective with it, both to promote its good, and to prevent it's bad effects. The two remaining ingredients, are ſugar and water; and theſe I will give up to the punch drinkers, and allow them all the benefit of them, they can bring to this compoſition: yet it will ſtill have malignity ſufficient remaining, to be held in deteſtation, (at leaſt for any great uſe, or in any great quantity, for ſome poiſons are ſo only by their quantity) by thoſe tender and valetudinary perſons, who value health and life. The ſtrong, the voluptuous, and the abandoned, need no advice, at leaſt they will take none. I could never ſee any temptation, for any one in their ſenſes, to indulge in this heatheniſh liquor, but that it makes it's votaries the ſooneſt, and all of a ſudden the deepeſt drunk, holds them longeſt in the fit, and deprives them the moſt entirely of the uſe of their

their intellectual faculties, and bodily organs, of any liquor whatsoever. It is likeſt opium, both in its nature, and in the manner of its operation, and neareſt arſenick in it's deleterious and poiſonous qualities: and ſo I leave it to them.

"Who knowing this will yet drink on and die."

§. 17. As to malt liquors, they are not much in uſe, excepting ſmall beer, with any but mechanicks and fox hunters. The French very juſtly call them barley ſoop. I am well ſatisfied, a weak ſtomach can as readily and with leſs pain, digeſt pork, and peaſe ſoop, as Yorkſhire or Nottingham ale. They make excellent birdlime, and when ſimmer'd ſome time over a gentle fire, make the moſt ſticking, and the beſt plaiſter, for old ſtrains that can be contrived. Even the ſmall beer that is commonly drank at London, if it be not well boiled, very clear, and of a due age, muſt be hurtful to perſons of weak nerves, and ſlow digeſtion. For fermenting again in the alimentary channels, it will fill the whole cavities of the body with windy fumes and vapours, which will at length play odd pranks in a craſy conſtitution. In fine, the valetudinary, ſtudious, and contemplative, muſt be contented with a pint of middling light wine a day, one half with, and the other without water.

§. 18. Since the time foreign luxury has been brought to its perfection here, there are a kind

kind of liquors in uſe among the better ſort, which ſome great doctors have condemned by bell, book, and candle, and others have as extravagantly commended: I mean, coffee, tea, and chocolate. For my own part, I take all their virtue to conſiſt in cuſtom, and all their harm in exceſs. As to coffee, it is a meer calx, or a kind of burnt horſe bean, but lighter on the ſtomach, and of ſomewhat a better flavour. The Turks uſe it, and opium inſtead of brandy. But the plea that ſome make for running into exceſs in it, from this Mahometan cuſtom, is altogether weak and groundleſs; for thoſe that do ſo there, ſuffer by it, as we do here: and thoſe that debauch in it, turn ſtupid, feeble, and paralitick by it, eſpecially when they join opium with it, as they frequently do, as thoſe who wallow in theſe do here, and are as much deſpiſed and expoſed by ſerious perſons, as our topers and brandy ſwillers are here. A diſh or two of coffee, with a little milk to ſoften it, in raw or damp weather, or on a wateriſh and phlegmatick ſtomach, is not only innocent, but a preſent relief. But it is as ridiculous, and perhaps more hurtful, at leaſt in thin and dry habits, to dabble in it two or three times every day, as it would be for ſuch to drink nothing but ſcalding lime-water. There are two kinds of tea in uſe, green and bohea. Mr. Cunningham, who lived ſeveral years in China, a very learned and accurate perſon * informs us, that they are

* Vide Phil. Collect.

are both gathered from the ſame ſhrub, but at different ſeaſons of the year; and that the bohea is gathered in the ſpring, and is dried in the ſun, the green at the fire. But I ſuſpect, and not without authority, that, beſides theſe differences in drying, ſome infuſion of another plant or earth (perhaps ſuch a one as that of Japan earth, or Catechu) muſt be poured on ſome ſorts of bohea tea, to give it the ſoftneſs, flavour, and heavineſs on the ſtomach it has, whereby it becomes a meer drug, and wants the natural ſimplicity of green tea, which when light, and drank neither too ſtrong nor too hot, I take to be a very proper diluent, when ſoftened with a little milk, to cleanſe the alimentary paſſages, and waſh off the ſcorbutick and urinous ſalts, for a breakfaſt, to thoſe who live full and free; as alſo it, or tea made of a ſliced orange or lemon, is one of the beſt promoters of digeſtion after a full meal, or when one is dry between meals, and much more ſafe and effectual than drams or ſtrong cordials which are commonly uſed for that purpoſe. Some perſons of weak tender nerves, fall into lowneſs and trembling upon uſing either of theſe liquors with any freedom, from their too great quantity, or their irritation on the tender and delicate fibres of the ſtomach. Such ought carefully to avoid and abſtain from them, as from drams and drops. But I can never be of their opinion who aſcribe the frequency of ſcurvy, vapours, lowſpiritedneſs, and nervous diſtempers now, to what they were in the days of our forefathers, to the cuſtom of drinking more frequently and freely of theſe

theſe foreign infuſions. The cauſe is not adequate to the effect; nor indeed has any analogy to, or connexion with it. We know that warm water, will moſt of any thing promote and aſſiſt digeſtion in weak ſtomachs and tender nerves. And by this alone I have ſeen ſeveral ſuch perſons recovered to a miracle, when cold mineral waters, bitters, cordials and drams, have done rather hurt than good. And tea is but an infuſion in water of an innocent plant: innocent, I ſay, becauſe we find by its taſte it has neither poiſonous, deleterious nor acrimonious qualities; and we are certain from it's uſe in the countries it comes from, (which are larger than moſt of Europe) that they receive no damage from it, but on the contrary, that it promotes both digeſtion and perſpiration. The argument from its relaxing the coats of the ſtomach and bowels by its heat, is of no force. For unleſs it be drank much hotter than the blood itſelf, it can do no hurt that way: And we ſee the bath guides, who dabble in water almoſt as hot as tea is ever drank, a great part of the day, and for one half of the year at leaſt, are no ways injured by it; except when they drink ſtrong liquors, too freely to quench the thirſt it raiſes. However, I ſhould adviſe thoſe who drink tea plentifully, not to drink it much hotter than blood-warm; whereby they will receive all its benefit, and be ſecure againſt all the harm it can poſſibly do. As to chocolate, I am of opinion, it is too hot and heavy, for valetud nary perſons, and thoſe of weak nerves. I have before obſerved, that nuts paſs through the ali-

mentary paſſages untouched; and though they may part with ſome of their more volatile particles, yet, I doubt if they can afford much nouriſhment to perſons of weak digeſtions. Some ſay, chocolate gives them an appetite; the meaning of which may be, that when they have a good appetite for their breakfaſt; it is not unlikely it may continue all the day: But I am of opinion, it is a falſe and hyſterical appetite, ſuch as ſharp wines, and ſharp humours in the ſtomach give. For fat and oily things, ſuch as all nuts are, are hard to digeſt, and lie long in the ſtomach, for reaſons I have already explained: it may lubricate and ſheath againſt the irritation of ſalt and ſharp humours in the bowels, and therefore may be good in the cholicks and gravel of thoſe of ſtrong and ſtout digeſtion; but can never be good food for thoſe of weak nerves and poor conſtitutions. Nothing is ſo light and eaſy to the ſtomach, moſt certainly, as the farinaceous or mealy vegetables, ſuch as peaſe, beans, millet, oats, barley, rye, wheat, ſago, rice, potatoes, and the like; of ſome of which on milk or water, I ſhould ever adviſe the valetudinary, and thoſe of weak nerves, to make their two leſſer or ſecondary meals. Tobacco is another foreign weed, much in uſe here in Britain; though not among the beſt, yet among the middle and inferior ranks of the people: for thoſe of groſs and phlegmatick conſtitutions, who abound in ſerous and watery humours, who are ſubject to coughs, catarrhs, and aſthmatick indiſpoſitions; who labour under violent toothachs, or are troubled with rheums in their eyes;

eyes; who have cold and wateriſh ſtomachs, and live fully and freely, both ſmoaking and chewing is a very beneficial evacuation, drawing off ſuperfluous humours, crudities, and cold phlegm, provided they carefully avoid ſwallowing the ſmoak, or the juice; and drink nothing, but wrench their mouths with ſome watery liquor after it, and ſpit it out. But to thin, meagre, and hectick conſtitutions, it is highly pernicious, and deſtructive; heating their blood, drying their ſolids, and defrauding the food of that ſaliva, which is ſo abſolutely neceſſary towards concoction. Snuffing the leaves, or the groſſer cut in a morning, will readily promote a flux of rheum by the glands of the noſe; and will be of good uſe, to clear the head and eyes. But the ridiculous cuſtom, of perpetually ſucking in ſophiſticated powders, and other foreign drugs ſold for ſnuff, cannot but be prejudicial both to the eyes, and even to the ſtomach; at leaſt, if we believe the reports of thoſe who ſay they have brought it up from thence.

§. 19. I have endeavoured to aſſiſt the reader, with ſome obſervations and reflections, to enable him towards determining the quantity and quality of his ſolid food, neceſſary either to prevent or cure chronical diſtempers. It may not be amiſs, here to make ſome reflections alſo on the fit proportion of drink proper for that purpoſe: as the food is, ſo muſt that be, various and uncertain, with regard to the age, ſize, labour, and conſtitution of the perſon and ſeaſon of the year. I have offered to limit the

quantity of ſtrong liquors, fitteſt to preſerve health and lengthen out life in general, to a pound or pint, and that of the middling kind. But the ſickly, the aged, and thoſe who would cure the chronical diſtemper, muſt even abate of this quantity. The only remaining queſtion, is about the quantity of water, or watery liquors, proper to be mixed with this ſtrong liquor, or drank by itſelf: for in this alſo, though in itſelf harmleſs and innocent, yet there is a choice and preference; becauſe, too much water will only ſerve to diſtend and ſwell up the veſſels, and waſh off ſome of the finer and more nutritious parts of the chyle; and too little, will not be ſufficient to dilute the ſolid food, or to make the chyle thin and fluid enough, to circulate through the fine and ſmall veſſels. I will ſuppoſe my patient to deal in no other cookery, but roaſting and boiling; and that he eats only freſh meat; boiling animal food, draws more of the rank, ſtrong, juices from it, and leaves it leſs nutritive, more diluted, lighter and eaſier of digeſtion. Roaſting on the other hand, leaves it fuller of the ſtrong nutritive juices, harder to digeſt, and wanting more dilution: Thoſe therefore, who muſt have full grown and adult animal food, ought to eat it boiled, and well boiled too; if their digeſtion be but weak. They who can live on young animal food, (which is beſt for weak ſtomachs,) ought to eat it roaſted, but muſt leſſen the quantity, in reſpect of the ſame food boiled; but they muſt dilute it more: for as roaſt meat has a better flavour and more nouriſhment, ſo it lies-

lies leſs flabby on the ſtomach, and does not ſo readily ſlip from, or diſappoint the action of grinding, which has ſome ſhare in digeſtion, both primary and ſubſequent: but it will want more dilution, with a watery menſtruum, to ſoften its more rigid and criſp fibres. If therefore, the whole weight of the ſolid food, in twenty-four hours, be ſuppoſed a pound and a half, then three pounds of liquor, that is one of ſtrong liquor, and two of ſome aqueous fluid, will in a medium, be ſufficient to dilute it abundantly. For thus there will be two particles of a fluid, to one ſolid particle; which abating the ſolid parts thrown off by ſiege, will ſuffice to make the chyle abundantly thin, to circulate through all the fine channels, whoſe diameters are larger than that of the ſolid particle, the principal end of its thinneſs and fluidity. More than this, would but diſtend the veſſels, and carry off the finer parts of the chyle by water or perſpiration; for we conſtantly find both theſe encreaſed by an over-doſe of fluids: and leſs would not ſufficiently dilute their food. I ſhould adviſe thoſe therefore, who have weak ſtomachs, or relaxed nerves, to mix their wine with the above named quantity of boiled water, with a burnt cruſt, at leaſt blood warm, and to drink it after their meal is over, if they can do it with eaſe, rather than in the time of eating: for the more ſpirituous and moſt nouriſhing parts of the food, will readily run off, without much dilution; and it will be the groſſer and harder remaining part, that will want it moſt. And if ſome time after their great meal, they

find their ſtomach loaded, the food riſing, hard belching, heart-burning, or much yawning, to ſwill down and dilute it with milk-warm, light green tea, or warm water, rather than to run to drams and cordials, the uſual, but moſt pernicious antidote in ſuch caſes. And upon great and heavy oppreſſion, much trouble and great ſtruggle in the digeſtion, to have recourſe to carduus or cammomile flower tea, to bring it up, rather than to treſpaſs in theſe poiſonous and cauſtick liquors, which, though they may at preſent leſſen the ſuffering, and hurry on the firſt concoction; yet make them dearly pay for it, when the unconcocted load of crudities comes to paſs by ſiege or perſpiration, either in cholicks, gripes, vapours, and oppreſſion of ſpirits; or by a general diſability and rheumatick ſtitches and pains.

§. 20. Upon the head of cordials mentioned in one of the foregoing Articles, I cannot forbear ſetting down one, whoſe virtues and efficacy I have long tried, and have never found it fail, when any thing would ſucceed: And I recommend it (to be kept by them) to all thoſe, who are liable to low ſpirits, faintings, oppreſſions, ſickneſs at the ſtomach, head achs, and vapours; and alſo to thoſe who wanting to exert themſelves in any buſineſs of conſequence, need a flow of ſpirits for ſome ſhort time, for that purpoſe; or indeed upon any ſudden accident ariſing of its own accord, out of the habit itſelf; I think it a kind of an univerſal remedy, but never to be uſed, but upon ſuch occaſions; becauſe, uſe may weaken

ken it, if not extinguiſh its virtue. It is thus,

Take of ſimple chamomile-flower water, ſix ounces; compound gentian, and wormwood waters, each an ounce and a half; compound ſpirit of lavender, ſal volatile, tincture of Caſtor, and gum ammoniack diſſolved in ſome ſimple water, each two drachms; tincture of ſnakeweed, and tincture of the ſpecies diambræ, each a drachm; the chymical oils of lavender, juniper, and nutmeg, each ten drops, mixed with a bit of the yolk of an egg, to make the whole uniform; aſſafetida and camphire in a rag, each half a drachm: But theſe may be left out by thoſe to whom they are diſagreeable.

Two, three or four ſpoonfulls of this is a preſent help in ſuch caſes. It will keep ſix months good.

General Rules for Health and Long Life, drawn from the Head of Meat and Drink.

1. THE great rule for eating and drinking for health is to adjuſt the quality and quantity of our food to our digeſtive powers. The quality may be judged by the following rules.

2. Thoſe ſubſtances that conſiſt of the groſſeſt parts are hardeſt of digeſtion; the conſtituent particles coming into more contracts, and conſequently adhering more firmly.

3. Theſe ſubſtances whoſe parts are brought together with the greateſt force, cohere proportionably cloſer, than thoſe that come together with a ſmaller * Momentum.

4. Salts are very hard to be ſeparated, becauſe united by plain ſurfaces, under which they are always comprehended. And in the laſt ſtages of the circulation, where it is ſlower, ſhoot readily into larger cluſters, and ſo are harder to be driven out of the habit. From theſe we may eaſily infer, that (1.) Thoſe vegetables and animals that come ſooneſt to their full growth are eaſier of digeſtion, than thoſe that are longer of attaining the ſtate of maturity. (2.) Thoſe that are the ſmalleſt of their kind

* i. e. Force.

kind, than the biggeſt. (3.) Thoſe of a dry, fleſhy, and fibrous ſubſtance, than the oily fat, and glutinous (4.) Thoſe of a white ſubſtance, than thoſe of a more flaming colour. (5.) Thoſe of a mild, ſoft, and ſweet, than thoſe of a ſtrong, poignant, aromatical, or hot taſte. (6.) land-animals, than ſea-animals. (7.) Thoſe animals that live on vegetables, or other light food, than thoſe that live on other animals, or hard and heavy food. (8.) The nouriſhment nature has appointed for young animals, is lighter than the fleſh of theſe animals themſelves.

5. All crammed poultry and ſtall-fed cattle, and even vegetables forced by hot beds, tend more to putrefaction, and conſequently are more unfit for human food, than thoſe brought up in the natural manner.

6. Plain-dreſſed food is eaſier of digeſtion, than what is pickled, ſalted, baked, ſmoaked, or any way high-ſeaſoned.

7. Strong men, thoſe of a large ſtature, and much labour, and the inhabitants of a cold and clear air, require more food than women, children, the weak, the ſedentary and the aged, and thoſe that live in a warmer climate, or groſſer air.

8. Nothing conduces more to health and long life, than abſtinence and plain food, with due labour.

9. Where exerciſe is wanting (as in ſtudi-

ous-

ous perſons) there is the greater need of abſtinence; for theſe, 8 ounces of animal, and 12 of vegetable food, in 24 hours, is ſufficient.

10. Moſt chronical diſeaſes proceed from repletion; as appears from their being cured by evacuation.

11. Tender perſons ought to uſe as much abſtinence, as they poſſibly can: and, if they neglect it, their only relief is from frequent ſtomachick and family purges.

12. A plain rule for judging of the quantity is, not to eat ſo much as indiſpoſes for buſineſs.

13. A more ſenſible and readier one is, firſt by experience to find out how much fits one, ſo as to be lightſome and healthy under it, and ever after to judge the quantity by the eye; nature requiring therein no mathematical exactneſs.

14. Pork and fiſh are not fit food for the ſtudious and the tender.

15. Water is the moſt natural and wholeſome of all drinks, quickens the appetite, and ſtrengthens the digeſtion moſt.

16. Strong and ſpirituous liquors freely indulged, become a certain, tho' a ſlow poiſon.

17. There is no danger in leaving them off all

all at once; the play for continuing them being falſe and groundleſs.

18. The beſt ſtrong liquor for weak and ſtudious people is wine; the beſt quantity, a pint in 24 hours; and the beſt way of drinking it is, three glaſſes with, and three without water.

19. The middling, light-wines, fully ripe, and of a due age, are preferable to the ſtrong wines.

20. Strong liquors do not prevent the miſchiefs of a ſurfeit, nor carry it off, ſo ſafely as water, though they ſeem to give preſent relief.

21. The frequent uſe of ſpirits in drams and cordials, is ſo far from curing lowſpiritedneſs, that it increaſes it, and brings on more fatal diſorders.

22. And even when they are diluted with water, in punch, the quantity taken down at once, and the addition of a corroding acid, produce equally pernicious effects in human conſtitutions.

23. Malt liquors (excepting clear ſmall beer, of a due age) are extremely hurtful to tender and ſtudious perſons.

24. Coffee is only an infuſion of a kind of calx, and has the effects of an abſorbent medicine

dicine; and ſo may be of ſome ſervice to watery ſtomachs, if moderately uſed.

25. Green tea is a good diluter of the food, as it is an agreeable, warm ſmall liquor: but bohea is too heavy for the ſtomach.

26. Chocolate (as all nuts elſe) is ſo heavy and hard of digeſtion, that it can never be fit for the ſtomachs of weak and tender people.

27. Smoaking tobacco, without drinking after it, chewing or ſnuffing the groſs cut leaf in the morning, are uſeful to phlegmatick conſtitutions; but to dry and lean habits they are pernicious. Snuff is juſt good for nothing at all.

28. The proper quantity of watery liquors in 24 hours, to thoſe that live regularly, is two pints, (as that of ſtrong liquor is one pint) which is beſt drank warm, and rather after than in the time of eating.

29. The form of a cordial, fit to be kept in private families, as a preſent and certain relief, for ſudden qualms, faintneſs, ſickneſs, or low ſpirits; but never to be taken but in caſe of neceſſity.

CHAP.

CHAP. III.

Of SLEEPING and WATCHING.

§. 1. THE next general head in order, is our ſleeping and watching. All bodies by their action upon one another, and by the action of the circumambient bodies, are liable to be impaired and waſted: and all animal bodies, from an active and ſelf-moving principle within them, as well as from the rubs of bodies without them, are conſtantly throwing off ſome of their ſuperfluous and decayed parts; ſo that animal bodies, are in a perpetual flux. To reſtore this decay and waſting of animal bodies, nature has wiſely made alternate periods of labour and reſt. Sleeping and watching, neceſſary to our being; the one for the active employments of life, to provide for and take in the materials of our nouriſhment; the other, to apply thoſe materials to the proper waſted parts, and to ſupply the expences of living. And it ſeems as improper in the order of nature, to diſturb the animal functions in the time of ſleep, by any other employment, than that of the ſecondary concoctions (as they are called;) i. e. the applying the nouriſhment to the decayed parts, to recruit the blood, perfect the ſecretions, and to lay up plenty of ſpirits, or (to ſpeak more

philoſophically) to reſtore the weakened tone of nervous fibres; that is, in ſhort, to reſtore the decays of watching and action: this I ſay, is as improper, as it would be (were it poſſible,) to eat or drink, or make proviſion for the neceſſities of life, in the time of ſleeping. From hence it is evident, the abſurdity of heavy, various, and luxurious ſuppers, or of going to reſt 'till many hours after ſuch a meal; which muſt otherwiſe break in upon the order of nature and the due and appointed times of ſleeping and watching. Wherefore, I adviſe the valetudinary, the ſtudious, and the contemplative, either to make no ſuppers, or only of vegetable food; and to take a due time for watching after them.

§. 2. There is nothing more certain, than that (abſtracting from acute caſes) our ſleep is ſound, ſweet and refreſhing, according as the alimentary organs, are eaſy, quiet and clean. If any one not ſuffering under any diſeaſe, is diſturbed in his ſleep, it is certain his ſtomach is filled with food, or crudities; or his guts filled with wind, choler, or ſuperfluous chyle: and thoſe reſtleſs nights, and the difficulty of going to ſleep, which are generally aſcribed to vapours, are entirely owing to theſe cauſes; though they be not ſo ſtrong, as to become ſenſible; for then pain is added to watching and they are felt. And upon complaints of ſuch reſtleſs nights, I never once failed, upon enquiry of finding the true cauſe in the diet of the preceding day, or of ſome few days before; and conſtantly have diſcovered that

ſome

ſome error in eating and drinking, either in quantity or quality has produced them. I have been aſtoniſhed to ſee hypochondriacal and hyſterical people, reſtleſs all night, toſſing and tumbling till towards morning, then dropping aſleep 'till late hours, awake heavy, oppreſſed, and unrefreſhed; complain of being hag-ridden, tired and wearied, as if they had been whipped, ſpurred, laſhed, and beaten through all the watches of the night; riſe with foul mouths, and white tongues, belchings, yawnings, coughing, ſpitting, or reaching and heaving, without appetite, ſpirits or life, all the day-time; begin to live and breathe, become chearful and hungry, about ten, eleven, or twelve o'clock at night; eat a hearty, various, and luxurious ſupper; drink a cheering cup of the beſt, become as merry as crickets, and long to ſit up later; at laſt tumble to bed, and repeat the ſame farce over again. The reaſon of all this complaint, is the load on the ſtomach, that will not ſuffer them to reſt, 'till it is got off. The ſharp and crude humours, twitching and twinging the nervous fibres, and coats of the bowels, become like ſo many needles and pins, conſtantly running through them; though not always with ſenſible pain: the unconcocted chyle ſtopping or circulating ſlowly, firſt in the bowels, then in the ſmaller veſſels, begets theſe convulſions, flatus, night-mares, and oppreſſion of ſpirits. So that the ſecondary digeſtions are not over 'till next evening, (hence their want of appetite:) and when theſe are finiſhed their ſtomachs come, and their ſpirits flow; and thus

the perpetual round is carried on. Did they but follow the dictates of nature, go to bed for some days with a light vegetable, or no supper at all, and bear the inconveniencies thence arising; their appetites would come in due season, and they would quickly find the truth of the aphorism of the Schola Salernitata.

* Somnus ut sit levis, sit tibi cœna brevis.

§. 3. The seasons for sleeping and watching, which nature seems to point out to us, at least in these our climates near the tropick, are the vicissitudes of day and night. Those damps, vapours, and exhalations, that are drawn up into the higher regions, and are so rarified by the heat and action of the sun, as to become innocent or very weak in the day-time; are condensed, sink low, near the surface of the earth, and are perpetually drooping down in the night season; and consequently must be injurious to those tender persons, that unnaturally watch in that season; and must necessarily obstruct the perspiration, which the activity of Watching, and the motion of labour promotes. I have already shewn, that our bodies suck and draw into them, the good or bad qualities of the circumambient air, through the mouths of all the perspiratory ducts of the skin. And if we were to view an animal body with

* i. e. That your sleep may be sweet, let supper be light.

with a proper glaſs, it would appear with an atmoſphere quite round it, like the ſteam of a boiling pot. Now we may eaſily conceive, what injury a conſtitution may receive, not only by ſtopping ſuch a perpetual diſcharge of ſuperfluities, but alſo by forcing into the habit, by the air's weight and preſſure, thoſe noxious fumes and vapours, that are perpetually falling near the ſurface of the earth, in the night-time. Your true topers are ſo ſenſible of this, that by obſervation they have gathered it to be more ſafe for their health, and better for prolonging their lives, to get drunk betimes and go to bed, than to ſit up and be ſober.

§. 4. On the contrary, the heat of the ſun in the day time, by its action on human bodies, the very light, and free air, and the motions of things about us, diſturbing the quiet of the air, muſt neceſſarily diſorder the equable courſe of the perſpiration, the tenor of the ſecondary concoctions, and the tranquility of the ſpirits ſo neceſſary to reſt and quiet. So that nothing ſeems more directly pointed out to us by nature, than the day for labour, and the night for reſt: and this without taking in the conſideration of the neceſſity of the ſun's light for the ends of labour, and providing the neceſſaries of life. Some animals that are exceeding tender, are directed by nature to alternate periods of watching and reſt, not twice in 24 hours, but twice in the year, viz. ſummer and winter; ſuch as ſwallows, bats, and many ſorts of inſects, who ſleep all

the winter, and watch all the ſummer. So conſiſtent is nature, in appointing the brighteſt and moſt enlightened parts of our lives for action, and the darkeſt and moſt inclement for reſt. Not but that robuſt conſtitutions (as well as animals fitted by nature for different ways of living) may by cuſtom, get the better of theſe natural appointments: But I write for the valetudinary, the ſtudious, and the contemplative.

§. 5. I adviſe all ſuch, if they would preſerve their health and lengthen out their days, to avoid as much as is poſſible evening dews, nocturnal ſtudies, and unſeaſonable watching; in ſummer to go to bed with the ſun, and in winter to riſe at leaſt by break of day. Thoſe who live temperately, will neceſſarily ſleep but little: but to recompence that, their ſleep will be much more ſound, refreſhing, and fruitful of chearfulneſs and free ſpirits, than that of thoſe who live more freely. For as I have before ſaid, the quantity of ſleep will always be in proportion to the quantity of eating and drinking. Valetudinary, ſtudious, and contemplative people, ought to go to bed by eight, nine or ten at fartheſt, and riſe by four, five, or ſix, by which they will have eight hours a-bed; and that is ſufficient for any perſon, not under an acute, or the ſharp fits of a chronical diſtemper.

§. 6. Nothing can be more prejudicial to tender conſtitutions, ſtudious and contemplative perſons, than lying long a-bed, of lolling and

and ſoaking in ſheets, any time after one is diſtinctly awake, or has ſlept a due and reaſonable time: it neceſſarily thickens the juices, enervates the ſolids, and weakens the conſtitution. A free open air is a kind of a cold bath, eſpecially after riſing out of a warm bed; and conſequently makes the circulation briſker and more compleat, and braces up the ſolids, which lying a bed diſſolves and ſoaks in moiſture. The erect poſture, and the activity of watching, make the perſpiration more plentiful, and the groſs evacuations more readily thrown off. This is evident from the appetite and hunger, thoſe that riſe early feel, beyond that which they get by lying long in bed. Add to all theſe the influence of the freſh, benign, morning air, the retreating of all the noxious damps and vapours of the night, together with the clouds and heavineſs, that are thrown upon the brain from ſleep; and laſtly, that chearfulneſs and alacrity that is felt by the approach or preſence, of that glorious luminary the ſun, which adds a new force to the heart, and a ſpur to the ſpirits.

§. 7. All nations and ages have agreed that the morning ſeaſon is the proper time for ſpeculative ſtudies, and thoſe employments that moſt require the faculties of the mind. For then the ſtock of the ſpirits is undiminiſhed, and in its greateſt plenty, the head is clear and ſerene, the paſſions are quieted and forgot; the anxiety and inquietude that the digeſtions beget in the nervous ſyſtem, in moſt tender conſtitutions and the hurry the ſpirits

rits are under after the great meal, are ſettled and wrought off. I ſhould adviſe therefore thoſe who are of a weak relaxed ſtate of nerves, who are ſubject to hypochondriacal or hyſterical diſorders, whoſe profeſſions lead them to much uſe of their intellectual faculties, or who would indulge ſpeculative ſtudies, to go early to bed, and to riſe betimes; to employ the morning hours in theſe exerciſes, 'till eleven o'clock, then to take ſome agreeable breakfaſt of vegetable food; to go on with their ſtudies and profeſſions 'till three, four, or five as their ſpirits will hold out, and then to take their great meal of animal food; all the reſt of the day to throw of all ſtudy and thought, divert themſelves agreeably in ſome innocent amuſement, with ſome gentle bodily exerciſe; and as ſoon as the digeſtion is over, to retire and provide for going to bed, without any farther ſupplies, except it be a glaſs of fair water, or warm ſack-whey. But the aged and ſickly muſt go ſooner to bed and lye longer, becauſe age and ſickneſs break reſt, and the ſtiffened and hardened limbs of the ancient become more pliant and relaxed by much ſleep, a ſupine poſture, and the warmth of the bed.

Rules for Health and Long Life drawn from the head of Sleep and Watching.

1. THE valetudinary, the ſedentary, and the ſtudious ſhould eat very light, or no ſupper; if any, it ought to be vegetable food; neither ought they to go ſoon to bed, after any ſupper whatſoever.

2. Going to bed on a full ſtomach, and wind and crudities ſomewhere in the alimentary paſſages, is the cauſe of the want of due reſt, which is found and refreſhing, always in proportion to the emptineſs and cleanneſs of theſe paſſages, and their vacation from their proper office of digeſtion: and this is the cauſe of the want of kindly and refreſhing reſt, in hypochondriacal and hyſterical people.

3. Watching by night and ſleeping by day, is of the moſt pernicious conſequence to health and long life; and plainly contrary to the indications of nature and the conſtitutions of our bodies.

4. The valetudinary, ſedentary, and ſtudious, ought carefully to avoid evening dews, nocturnal ſtudies, and unſeaſonable watching; go to bed by eight, nine, or ten, and riſe proportionably by four, five, or ſix; unleſs actually under a fit of ſickneſs.

5. Nothing is more prejudicial to tender conſtitutions, than lying long a-bed, indulging

ing a lethargical and drowsy sleep, or lolling or loitering awake; as appears by their heavineſs, and want of appetite, upon doing ſo; and their good ſtomachs, chearfulneſs, and freedom of ſpirits, when they riſe early.

6. The moſt advantageous manner for the tender, ſedentary, and ſtudious, to beſtow their time, on account both of their health and ſtudies, is to go early to bed, riſe betimes, go about their ſtudies till eleven, taking a light vegetable breakfaſt; proſecute them till about four in the afternoon, then to take their great meal of animal food, and after that to employ the reſt of their time in ſome innocent amuſement, or gentle bodily exerciſe; to retire betimes, to prepare for going to bed, taking no farther nouriſhment, except a draught of water or warm ſack-whey, which will be particularly uſeful to thoſe who labour under ſtone and gravel.

CHAP.

CHAP. IV.

Of EXERCISE and QUIET.

§. 1. WE proceed, in the next place, to the conſideration of exerciſe and quiet, the due regulation of which, is almoſt as neceſſary to health and long life, as food itſelf. Whether we were ſo made before the fall, as to live in entire health, in a rigidly ſedentary and contemplative life, is a ſpeculation of no great conſequence, nor eaſily determined in our preſent ſituation; for there is no certain analogy between things as they now are, and as they might have been then. As there happened an entire revolution in the complexion and qualities of the minds of the firſt pair; ſo, to me, there appear, to be evident indications of a deſigned change and alteration of the material world, and the nature of the animals and vegetables which ſubſiſt on this globe, from what they were when God pronounced every thing good that he had made. Nor ſeem the cœleſtial bodies to have eſcaped, ſo far as they regard us. Whatever be in this, the paſſage where God tells Adam, * That in the

* Gen. chap. iii. v. 19.

the ſweat of his brow he ſhall eat bread, ſeems to be the injunction of a ſalutary penance; that is, not merely a puniſhment, but alſo a remedy againſt the diſorders his body would be liable to in this new ſtate of the creation, and againſt the poiſonous effects of the forbidden tree he had eaten the fruit of. I am the more confirmed in this belief, that I obſerve, the abſolute neceſſity of labour and exerciſe, to preſerve the body any time in due plight, to maintain health, and lengthen out life. For, let whatſoever diet be purſued, however adjuſted, both in quantity and quality; let whatever evacuation be uſed to leſſen the malady, or any † ſuccedaneum be propoſed, to prevent the ill effects; our bodies are ſo made, and the animal œconomy now ſo contrived, that without due labour and exerciſe, the juices will thicken, the joints will ſtiffen, the nerves will relax, and on theſe diſorders, chronical diſtempers, and a crazy old age muſt enſue. Nor is this neceſſary only in the colder climates, and where the food is groſs, but even in the warmeſt climates, and where the food is lighteſt. For though the warmth of the air may keep the perſpiration free and open, or rather, where it is very great, promote ſweating; yet, at the ſame time, and by conſequence, it will thicken the fluids, and relax the fibres: to prevent both which, exerciſe is abſolutely neceſſary: but in ſuch a climate it ought

† i. e. Equivalent.

ought to be gone about in the cool of the day. And though light food may, in a great measure, prevent the thickening of the fluids, yet it cannot do it sufficiently without exercise; nor can it at all keep the fibres in due tension; for to that purpose exercise is absolutely necessary. Nay, the joint power of warm air, and light food, cannot supply the place of exercise, in keeping the joints pliant and moveable, and preserving them from growing rusty and stiff.

§ 2. I have sometimes also, indulged a conjecture, that animal food, and made or artificial liquors, in the original frame of our nature, and design of our creation, were not intended for human creatures. They seem to me, neither to have these strong and fit organs for digesting them (at least such as birds and beasts of prey have, who live on flesh;) nor, naturally, to have those voracious and brutish appetites, that require animal food, and strong liquors, to satisfy them; nor those cruel and hard hearts, or those diabolical passions, which could easily suffer them to tear and destroy their fellow creatures; at least, not in the first and early ages, before every man had corrupted his way, and God was forced to exterminate the whole race, by an universal deluge, and was also obliged (that the globe of the earth might not, from the long lives of its inhabitants, become a hell, and a habitation for incarnate devils) to shorten their lives from 900 or 1000 years, to 70. He wisely foresaw, that animal food, and artificial liquors, would naturally contribute to-

wards this end; and indulged, or permitted, the generation that was to plant the earth again after the flood, the uſe of theſe for food, knowing that though it would ſhorten the lives, and plate a ſcourge of thorns for the backs of the lazy and voluptuous, it would be cautiouſly avoided by thoſe who knew it was their duty and happineſs to keep their paſſions low, and their appetites in ſubjection. And this very æra of the flood, is that mentioned in Holy Writ, for the indulgence of animal food and artificial liquors, after the trial had been made, how inſufficient alone, a vegetable diet (which was the firſt food appointed for human kind, immediately after their creation) was, in the long lives of men, to reſtrain their wickedneſs and malice; and after finding, that nothing but ſhortning their duration could poſſibly prevent the evil. It is true, there is ſcarce a poſſibility of preventing the deſtroying of animal life, as things are now conſtituted, ſince inſects breed and neſtle in the very vegetables themſelves, and we ſcarce ever devour a plant or root, wherein we do not deſtroy innumerable animalcules. But beſides what I have ſaid, of nature's being quite altered and changed from what was originally intended, there is a great difference between deſtroying and extinguiſhing an animal life (which otherwiſe might ſubſiſt many years) by choice and election, to gratify our appetites, and indulge concupiſcence; and the caſual and unavoidable cruſhing of thoſe, who perhaps, otherwiſe, would die within the day, or at moſt the year, and obtain but an inferior kind of exiſtence

and

and life at beſt. Whatever be in this conjecture, it is evident to thoſe who underſtand the animal œconomy, and the frame of human bodies, together with the hiſtory, both of thoſe who have lived abſtemiouſly, and of thoſe who have lived freely, that indulging in fleſh meats, and ſtrong liquors, inflames the paſſions, and ſhortens life, begets chronical diſtempers, and a decrepid age, as the hiſtory of the life of Cornaro, manifeſts to a demonſtration.

§ 3. Of all the exerciſes that are, or may be uſed for health (ſuch as walking, riding a horſe-back, or in a coach, fencing, dancing, playing at billiards, or tennis, digging, working at a pump, ringing a dumb bell, &c.) walking is the moſt natural, as it would be alſo the moſt uſeful, if it did not ſpend too much of the ſpirits of the weakly. Riding is certainly the moſt manly, and moſt healthy, and the leaſt laborious, and expenſive of ſpirits, of any; ſhaking the whole machine, promoting an univerſal perſpiration and ſecretion of all the fluids (to which may be added, the various changes of the air, through which they ſo quickly paſs, every alteration of which, becomes, as it were, a new bath) and thereby, variouſly twitching the nervous fibres, to brace and contract them, as the new ſcenes amuſe the mind. Thoſe who cannot ride, muſt be carried in a coach or litter, which is the beſt exerciſe for the lame and crazy, and the only one proper for old and decrepid perſons, as well as thoſe that are ſo young, that they are

not able to manage their own exercise. The home exercises, such as playing at tennis and billiards, dancing, fencing, and the like, ought to be followed only when the season forbids being abroad; for being in the air, contributes much towards the benefit of exercise. It is beautiful to observe that earnest desire, planted by nature, in young persons, to romp, jump, wrestle, and run, and constantly to be pursuing exercises and bodily diversions, that require labour, even till they are ready to drop down; especially the healthier sort of them: so that sitting, or being confined, seems to be the greatest punishment they can suffer, and imprisoning them for some time, will much more readily correct them than whipping. This is a wise contrivance of nature; for thereby their joints are rendered pliable and strong; their blood continues sweet, and proper for a full circulation; their perspiration is free, and their organs streched out, by due degrees, to their proper extension.

§ 4. It is also very agreeable to observe, how the several different organs of labouring men are strengthened, and rendered brawny and nervous, as they happen to be most employed in their several vocations, let them be otherwise ever so small or weakly. The legs, thighs, and feet of chairmen; the arms and hands of watermen; the backs and shoulders of porters, grow thick, strong, and brawny by time. It is certain, that speaking strong and loud, without overstraining, will strengthen the voice, and give force to the lungs. Our nails

nails and hair, the more they are cut and ſhaved, the more they grow. And we may promote any one evacuation ſo far, as to weaken and ſtarve all the reſt. Uſing any organ frequently and forcibly, brings blood and ſpirits into it, and ſo makes it grow plump and brawny. And, if due pains were taken by the labour proper to them, the organs of all the functions of the animal œconomy might be ſtrengthened and kept in due plight.

§ 5. Therefore, to the aſthmatick, and thoſe of weak lungs, I ſhould recommend talking much and loud, even by themſelves, walking up an eaſy aſcent, and when any degree of wearineſs warns them to ſit and reſt, 'till they are eaſy, and then to return to their walking again, and ſo to encreaſe it every day, 'till they are able to walk a reaſonable diſtance, in a reaſonable time. To thoſe who have weak nerves and digeſtion, and to thoſe who are much troubled with head-aches (moſt of all which ariſe from the ill ſtate of the ſtomach and bowels) I ſhould recommend riding on horſeback as much as poſſibly they could, in the cleareſt and drieſt air, and to change the air daily, if poſſible. To thoſe who are troubled with the ſtone or gravel, to ride much over rough cauſe ways in a coach. To thoſe that have rheumatick pains, to play at billiards, tennis or cricket, 'till they ſweat plentifully, and then go immediately into a warm bed, and drink liberally of ſome warm thin liquor, with ten drops of ſpirit of Sal Armoniac or harts-horn in each draught, to encou-

rage the ſweating. To thoſe who have weak arms or hams, playing two or three hours at tennis, or at foot-ball, every-day. To thoſe who have weak backs or breaſts, ringing a bell or working at a pump. Walking thro' rough roads, even to laſſitude, will ſooneſt recover the uſe of their limbs to the gouty; tho' riding on horſeback or in a coach will beſt prevent the diſtemper. But the ſtudious and the contemplative, the valetudinary, and thoſe of weak nerves, if they aim at health and long life, muſt make exerciſe a part of their religion, as it is among ſome of the eaſtern nations, with whom pilgrimages, at ſtated times, are an indiſpenſible duty, and where mechanical trades are learned and practiſed by men of all ranks. Thoſe who have their time in their own hands, ought to have ſtated ſeaſons for riding or walking in a good air, as indiſpenſible, as thoſe for going to dinner, to bed, or to church. Three hours for riding, or two for walking, the one half before the great meal, and the other before going to bed, is the leaſt that can be diſpenſed with: as the firſt part begets an appetite, the ſecond helps on the digeſtion. Thoſe who are not maſters of their own time, muſt take it when they can; but to be ſure they ought to let no opportunity of taking it ſlip.

§. 6. There are three conditions of exerciſe to make it the moſt beneficial that may be. Firſt, that it be upon an empty ſtomach (as, indeed, that is the proper time for all medicinal evacuations) for thereby, the now concocted

coctcd * crudities, or thoſe ſuperfluities nature would be rid of, and has fitted, by going through the proper ſecretions, for being ejected, but cannot throw off without foreign aſſiſtance, will be readieſt diſcharged. For, on a full ſtomach exerciſe would be too tumultuous, precipitate the ſecretions, and throw off the ſound juices with the corrupted humours. Secondly, that it be not continued to downright laſſitude, depreſſion of ſpirits, or a melting ſweat. The firſt will wear out the organs, the ſecond ſpend the ſtrength, and the third will only do violence to the natural functions. Thirdly, due care is to be had after exerciſe, to retreat to a warm room and proper ſhelter from the injuries of the weather, leſt ſucking into the waſted body, the nitrous particles of the circumambient air, they ſhould inflame the blood, and produce a rheumatiſm, fever or cold. I might add a fourth condition, joining temperance to exerciſe, otherwiſe the evil will be as broad one way, as it is long the other. For ſince exerciſe will create a greater appetite, if it is indulged to the full, the concoctive powers will be as unequal to the load, as they were before. But I paſs that over, having ſufficiently treated this ſubject already.

§ 7. Under this head of exerciſe, I cannot forbear recommending cold-bathing; and I can-

*Cocta non cruda ſunt evacuanda. Hippocrat.

cannot ſufficiently admire, how it ſhould ever have come into ſuch diſuſe, eſpecially among chriſtians, when commanded by the greateſt lawgiver that ever was, under the direction of God's holy ſpirit to his choſen people, and perpetuated to us in the immerſion at baptiſm, by the ſame ſpirit, who, with infinite wiſdom in this, as in every thing elſe that regards the temporal and eternal felicity of his creatures, combines their duty with their eternal happineſs. Firſt the neceſſity of a free perſpiration to the preſervation of health, is now known to every body, and frequent waſhing the body in water, cleanſes the mouths of the perſpiratory ducts from that glutinous foulneſs that is continually falling upon them, from their own condenſed dewy atmoſphere, whereby the perſpiration would be ſoon obſtructed, and the party languiſh. Secondly, The having the circulation full, free and open, through all the capillary arteries, is of great benefit towards health and long life. Now nothing promotes that ſo much as cold bathing; for by the violent and ſudden ſhock it gives to the whole ſyſtem of the fluids, from the circumference inward towards the centre, and the fluids (becauſe reaction is always equal and contrary to action) ſpringing back again from the centre to the circumference, a force is raiſed almoſt ever ſufficient to break through all the dams and obſtructions of the ſmalleſt veſſels, where they moſtly happen, and to carry the circulation quite round. Thirdly, nothing is ſo injurious, and ſo much prevents the benefit of exerciſe to weak and tender conſtitutions,

ſtitutions, as ſucking into their bodies the nitrous and humid particles of the air, that is, catching of cold. Now nothing ſo effectually prevents this, as cold bathing; as the nature of the thing ſhews, and experience confirms; for if exerciſe, to attenuate the juices, and ſtrengthen the ſolids, be added to cold bathing, a new ſpring and force will be given to the blood, both to drive out theſe foreign and noxious mixtures, and to unite the cuticular ſcales, which form the ſcarf ſkin, ſo as to ſtrengthen it for the future againſt ſuch violent entries.

§ 8. I ſhould adviſe therefore, every one who can afford it, as regularly to have a cold bath at their houſe to waſh their bodies in, as a baſon to waſh their hands; and conſtantly, two or three times a week, ſummer and winter, to go into it. And thoſe that cannot afford ſuch conveniency, as often as they can, to go into a river or living pond, to waſh their bodies. But this ought never to be done under the actual fits of a chronical diſtemper, with a quick pulſe, head-ach, weak lungs, or a foul ſtomach; nor ought they ſtay in till they are over-chilled. And in winter, they ought to purſue their exerciſes immediately after they come out; and thoſe of tender nerves, ought to pour baſons of cold water on their head, or waſh it well with a dripping ſponge before they go in. I cannot approve the precipitant way of jumping in, or throwing the head foremoſt into a cold bath, it gives too violent a ſhock to nature, and riſques too much the burſting

ſome

ſome of the ſmaller veſſels. The natural way is, holding by a rope, to walk down the ſteps as faſt as one can, and when got to the bottom, bending their hams (as women do when they curtſey low) to ſhorten their length, ſo as to bring their heads a good way under water, and then popping up again to take breath; and thus alternately for two or three times, and out again, rubbing and currying well before they are dreſſed. And this brings me to ſay ſomething of another kind of exerciſe.

§ 9. The fleſh bruſh is an exerciſe moſt uſeful for promoting a full and free perſpiration and circulation; almoſt every body knows, what well currying will do to horſes, in making them ſleek and gay, lively and active; even ſo much as to be worth half the feeding. This it can no otherwiſe effectuate, than by aſſiſting nature to throw off by perſpiration, the * recrements of the juices which ſtop the full and free circulation, and by conſtant friction, irritation and ſtimulation, to allicite blood and ſpirits to the parts moſt diſtant from the ſeat of heat and motion, and ſo to plump up the ſuperficial muſcles. The ſame effect it would produce in other animals, even human creatures themſelves, if they were managed in the ſame manner, with the ſame care and regularity. I ſhould think it therefore, well worth

* i. e. The groſſer parts.

worth the pains of perſons of weak nerves and ſedentary lives, eſpecially thoſe threatened with paralytick diſorders, to ſupply the want of exerciſe of other kinds, with ſpending half an hour, morning and night, in currying and rubbing their whole body, more eſpecially their limbs, with a fleſh bruſh. And it is a wonder to me, that luxury has not brought cold bathing and currying in uſe, upon the animals (eſpecially thoſe of them upon whom they can be ſo readily made uſe of, ſuch as oxen, pigs, veal, lamb, and all poultry, which naturally delight in cold bathing) which are brought to the table. For certain it is, that cleanneſs and due exerciſe (of which currying is one part) would much contribute to make all animals whatſoever, without exception, healthier in themſelves, fuller of juice and ſpirits, and, conſequently, better food for human creatures.

As to quiet, the conditions of exerciſe being determined, there needs nothing to be ſaid of it.

Rules for Health and Long Life, drawn from the Head

Of EXERCISE and QUIET.

1. WHATEVER was the original conſtitution of man, in our preſent ſtate, a due degree of exerciſe is indiſpenſibly neceſſary towards health and long life.

2. Animal food, and ſtrong liquors, ſeem not to have been deſigned for man in his original make and frame; but rather indulged, to ſhorten the antediluvian length of life, in order to prevent the exceſſive growth of wickedneſs.

3. Walking is the moſt natural and effectual exerciſe, did it not ſpend the ſpirits of the tender too much. Riding a horeback is leſs laborious, and more effectual for ſuch. Riding in a coach is only for the infirm, and young children. Houſe exerciſes are never to be allowed, but when the weather, or ſome bodily infirmity will not permit going abroad; for air contributes mightily to the benefit of exerciſe. Children naturally love all kinds of exerciſe, which wonderfully promotes their health, increaſes their ſtrength, and ſtretches out their organs.

4. The organs of the body that are moſt uſed, always become ſtrongeſt, and therefore we may ſtrengthen any weak organ by exerciſe.

5. The

5. The lungs are fortified by loud talking, and walking up an eaſy aſcent. The digeſtion and the nerves are ſtrengthened, and moſt head-aches cured, by riding; the ſtone and gravel eaſed by riding in a coach over rough ground; rheumatick pains by playing at tennis, billiards, &c. 'till one ſweat, and then going to a warm bed, to promote the ſweating; feeble arms by playing at ſhittle-cock, or tennis; weak hams by football, and weak backs by ringing, or pumping. The gouty beſt recover the uſe of their limbs by walking in rough roads; but prevent the fits beſt, by riding a horſeback, or in a coach. The valetudinary, and the ſtudious, ought to have ſtated times for exerciſe, at leaſt two or three hours a day, the one half before dinner, the other before going to bed.

6. Exerciſe, 1 Should always be gone about with an empty ſtomach: 2. Should never be continued to wearineſs: 3. After it, one muſt take care not to catch cold. And it ſhould always be accompanied with temperance, elſe, inſtead of a remedy, it will become an evil.

7. Cold bathing is of great advantage to health; but ſhould not be uſed under a fit of a chronical diſtemper, with a quick pulſe, or with a head-ach, or by thoſe that have weak lungs. It promotes perſpiration, enlarges the circulation, and prevents the danger of catching cold. Thoſe of tender nerves, ſhould pour water on their heads before they

go in, and none ought to jump in ſuddenly, and with their heads foremoſt.

8. The fleſh bruſh is a moſt uſeful exerciſe, as appears by its advantage to horſes, and ought not only to be uſed on human bodies, but alſo on ſuch of the animals we deſign for our food, as it can be applied to.

CHAP. V.

Of our EVACUATIONS, and their OBSTRUCTIONS.

§ 1. THE three principal evacuations are, by ſiege, by water, and by perſpiration. All theſe muſt be duly regulated, and in the order of nature, towards the preſervation of health, and the prolonging of life. The firſt ought to be of a due conſiſtence between both extremes. * Oportet ſanorum ſedes eſſe figuratas. Thoſe who are coſtive; have either over-heated their bodies with ſtrong liquors; have eaten too ſparingly; have too ſlow a digeſtion, or the periſtaltick motion of their guts are too weak, whereby the food ſtaying too long a time before the mouths of the lacteals, is over-drained of its moiſture: Thoſe who have purging ſtools, have eat too much, or of things too ſtrong for

* i. e. The groſs evacuations ought to be of ſuch a conſiſtence in the healthy, as to take the impreſſion of the guts.

their concoctive powers. For superfluous nourishment leaves too much chyle in the † fœces, which fermenting in the guts, stimulates them so as to become a purge. I have often observed, that a full meal of strong meat, as fish, beef, pork, baked meat, or made dishes, in tender persons, goes off with the hurry and irritation of a purge, leaving the bowels inflated, cholicked, or griped, and the spirits sunk to the last degree. The food, by its various mixture, weight, and fermentation, stimulating all along from the stomach to the rectum, and being scarce ever drained of its chyle, without affording any nourishment to the body, runs off thus crudely, and becomes equal to a total abstinence from food for a long time. And hence we have a most infallible rule, *a posteriori, to judge if we have governed ourselves in our diet, in proportion to the necessities of nature, and the forces of our concoctive powers. This is the very reason why the bark over-dosed, and given to persons of weak digestion, so constantly purges them; and why mercury, given either inwardly, or by friction, runs off in violent purging, and cannot be raised into a salivation; to wit, the not adjusting the doses to the strength of the stomach and nervous fibres.

† i. e. The food, after it is drained of its nutritious parts.

*i. e. After the trial has been made.

fibres. For the bark naturally binds, and mercury naturally rises to the most pervious glands. And in this sense, I myself have frequently observed in weak and scrofulous bowels, even diascordium, and venice treacle to purge: whereas, had the doses been duly proportioned, or had they begun by underdosing, and taken a little longer time, their end might have been effectually answered; as I have often experienced without ever failing.

§ 2. And here it may not be amiss to take notice of a fatal mistake those run into, who, being weakly, thin, and slender, aim, by all means, and at any price, to become plump and round, and in order to attain this, are perpetually devouring huge quantities of high, strong food, and swallowing proportionable measures of generous liquors, not knowing, that by this very method, they promote and confirm the disease they would remedy; For in such persons and cases, the globular part of the blood is constantly of a small quantity, and very glewy, and the serous part, thin and watery (that is, the blood is poor and weak) and the solids or nerves are loose and relaxed. And the concoctive powers being in proportion to these two, of consequence, the digestions must be weak and imperfect, and their force unable to dissolve and break any quantity of such strong meat or spirituous liquors into a proper chyle for nourishment. And this great load must either be hurried off entirely through the alimentary ducts in supernumera-

ry diſcharges, or the ſmall portion of chyle drawn out of it, being too groſs to unite and make a ſimilar fluid with the maſs of the blood, muſt be precipitated through the other drains of the body; and thus the poor thin creature muſt ſtarve in luxury, and waſte amidſt ſuperfluity. The caſe is the ſame with nurſes and parents in rearing up young children. The perpetual gripes, cholicks, looſeneſs, hard bellies, choakings, wind, and convulſive fits, which torment half the children of England, are entirely owing to the too great quantities of too ſtrong food, and to rank milk, thruſt down their throats by their overlaying mothers and nurſes. For what elſe do their ſlimy, their grey or chylous, their blackiſh and cholerick diſcharges, the noiſe and motion in their bowels, their wind and choakings, imply, but crudities from ſuperfluous nouriſhment? This is ſo certain, that they are univerſally, and infallibly cured by teſtaceous powders, which only abſorb ſharp crudities, by rhubarb purges, which at once evacuate and ſtrengthen the bowels, and by milk clyſters, iſſues, and bliſters, which are ſtill upon the foot of evacuation; by obſtinately perſiſting in theſe, and the like (intended to evacuate and ſtrengthen the alimentary paſſages) and a thin, ſpare, nutritive diet. Nothing nouriſhes but food duly concocted; and, in the courſe of nature, we muſt firſt plump up and extend, and then harden and ſtrengthen. This is the way of nature in vegetation. And thus the animal creation, devoid of reaſon, rear up their young: and thus even the ſkilful groom

groom treats his waſted and decayed horſe: and (which is wonderful) you ſhall find a ſagacious horſe-doctor plump up and fatten a rotten, lean, broken-winded jade, and make him look ſleek, gay, and lively, ſo as to cheat not only the Eſquire, but his brother doctor, in fewer weeks, than all the man-doctors in England could rear up their fellow creature, in years. It is true the juices of men are more variouſly, and more thoroughly corrupted, and their ſolids entirely broken, which never happens to the brute creation. But the greateſt miſtake lies in the neglect of duly obſerving, and religiouſly proſecuting a proper regimen. This muſt principally conſiſt in a diet of ſoft, light, tender, cool, and mucilaginous foods, or ſuch as are already become chyle, either by nature or art, ſuch are milk, and milk-meats, rice, ſago, barley, wheat, eggs, broths, light ſoops, jellies, white, young, tender, and well fed poultry, or butchery meat, eaten little at a time, and often, never without an appetite, nor to ſatiety; joining to theſe, the other helps and aſſiſtances mentioned in this treatiſe. When fleſh is once come, it is eaſy to make it ſtrong and hardy, by due exerciſe, and a gradual adventuring upon higher foods and more generous liquors.

§ 3. I have often heard valetudinary and tender perſons, and thoſe of ſedentary lives and learned profeſſions, complain of headachs, ſickneſſes at the ſtomach, cholicks and gripes, lowneſs of ſpirits, wind, and vapours, and

and yet pretend they were moderate and abſtemious in their eating and drinking; but, upon enquiry, I conſtantly found theſe very perſons purſued with purging ſtools, which was an evident proof, to me, that they had taken down more than they wanted, or could digeſt. For it is univerſally certain, that thoſe that do not exceed, muſt have either coſtive, or, at leaſt, ſtools of a middle conſiſtence. There is nothing more ridiculous, than to ſee tender, hyſterical and vapouriſh people, perpetually complaining, and yet perpetually cramming; crying out, They are ready to ſink into the ground, and faint away, and yet gobbling down the richeſt and ſtrongeſt food, and higheſt cordials, to oppreſs and overlay them quite. Freſh and generous food, mixing with the ſharp humours of the ſtomach and the bowels, may, for ſome ſhort time, qualify and abate their irritation, and may give a fillip to the ſluggiſh circulation, and become, as it were, a cork to ſtop the perpetual fuming up of theſe noxious ſteams upon the head and brain: but this is (pardon the ſimilitude) as if one ſhould go to quench the peſtilential ſteams of a common-ſewer, by throwing in greater heaps of ordure and nuiſance into it. The proper remedy in this caſe is, Firſt, To cleanſe the fœtid abyſs, and then to preſerve it clean by cutting off the inlets of putrefaction. This will require a little courage, labour, and pain; but the future eaſe and ſweetneſs, will more than abundantly recompence them; for there is nothing more certain, than that of thoſe born ſound here in

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England, the head-aches, ſtomach aches, cholicks, and nervous pains and diſorders, univerſally proceed from idleneſs and fulneſs of bread.

§ 4. Thoſe who eat but one moderate fleſh meal a day, will have regularly once a day a diſcharge of the remains of their food. And, generally ſpeaking, thoſe that go oftner, have exceeded ſome how. Thoſe who pretend to cure themſelves of nervous diſorders, or any other chronical diſeaſes, or preſerve themſelves from them, or lengthen out their days, muſt underdoſe themſelves (and therefore can go but once in two days) even though they ſhould undergo the pain of coſtiveneſs. For it is impoſſible the nerves of thoſe who have flippery bowels, ſhould ever be braced or wound up; for there the cure muſt begin, where the evil began; and muſt be communicated thence to the reſt of the ſyſtem, as a ropemaker begins the twiſt at one end of the rope, and communicates it to all the other parts. Our acceſs to the nerves of the ſtomach and bowels, is obvious and open: to the reſt the way is difficult, and far about. And ſince a relaxation, weakneſs, and want of ſpring in the fibres, is the origin of all nervous diſtempers, no medicines, but ſuch as contract, ſtiffen, wind up, and ſhorten them, can remedy this evil; and they muſt neceſſarily contract and bind up the fibres of the ſtomach and guts, as the parts they firſt approach and exert their virtue upon. And he, who without firm bowels, thinks to cure a nervous diſtemper

temper, labours as much in vain, as he who would keep a fiddle-ſtring ſoaking in oil and water, to make it vibrate or play off a fine compoſition of muſick.

§ 5. By experience and obſervation I have found, that in thoſe who have one regular diſcharge in twenty four hours, the time of the progreſs of the food from the ſtomach, 'till its remains are thrown off, is three natural days. And in thoſe who go but once in two days, the time is ſix natural days. The curious may be ſatisfied in this, by ſwallowing an almond, or any other nut, which paſſes without being broken, or making any irritation. The reaſon is this, that a ſmaller quantity of food is retained longer, by their ſuction, at the mouths of the lacteals, to drain it entirely of its chyle, and its weight being leſs, the concoctive powers have the greater force upon it, and ſo it is retained till it is perfectly digeſted, and drained of all its humidity; whereby ſuch people become coſtive: whereas in people that exceed, the contrary cauſes precipitate the courſe of the aliment, and ſo leave the bowels always ſlippery. And nothing can more demonſtratively ſhew an exceſs, than the lubricity of the diſcharge; and I have often obſerved in tender perſons, and thoſe of weak nerves, when a meal (I mean only of thoſe who eat fleſh meat but once a day) has been a little too hard for the ſtomach, tho' the ſpirits has been full and free, and the health equal and good, by duly proportioned meals for two preceding days; the third day, when

when the groſs meal came off, they have been full of wind and vapours, their eyes dim, and their heads heavy, with flying rheumatick pains over the body, and cholick-gripes from whence we may draw theſe three corollaries.

Corol. 1. It requires the ſame time for the unconcocted chyle of a groſs meal to run the circle of the habit, and the feculent remains to paſs through the guts; the firſt by perſpiration, and the laſt by ſiege.

Coroll. 2. We may likewiſe gather from thence, a confirmation of that aphoriſm of the phyſicians; that the errors of the firſt concoctions, are never mended in the ſubſequent, unleſs the caſe to be mentioned in the next paragraph be an exception to it. For the groſs meal gave rather more uneaſineſs, when it came to be thrown off by perſpiration.

Coroll. 3. From hence we may alſo ſee, the ridiculouſneſs of the vulgar opinion, aſcribing univerſally the pain they ſuffer, or the relief they find, to the laſt meal or medicine.

§ 6. There are ſome ſorts of food which may oppreſs and load the ſtomach and alimentary ducts in the firſt concoction, which may be very ſafe and benign in the ſubſequent ones. For inſtance, cheeſe, eggs, milk-meats, and vegetable food, tho' duly prepared, and juſtly proportioned in quantity, may chance to lie heavy on the ſtomach, or beget wind in the alimen-

alimentary paſſages of ſome perſons (and yet drinking of water will always remedy this inconveniency): But theſe, neither having their parts ſtrongly united, nor abounding in ſharp urinous ſalts, when they become ſufficiently diluted with a watery menſtruum, or diſſolved into their component parts, and their parts being ſtill ſmaller than the ſmalleſt veſſels, and their union conſtantly leſs, than the force of the concoctive powers, in perſons who have any remaining fund of life in them; will thereby yield a ſweet, thin, and eaſily circulating chyle, in the after concoctions become benign and ſalutary, and afford no materials for chronical diſtempers. And the wind thence generated, not being pointed and armed with ſuch ſharp ſalts, as thoſe of fleſh meats, or the corroſive juices of ſpirituous liquors, will be as innocent and ſafe, as the element we breath in.

§. 7. The ſecond evacuation is by water, whoſe circumſtances and condition, tho' little adverted to, may be of great ſervice to diſcover both the ſtate of our conſtitution, and the proportion of our diet. Some people are frightened when they find their water turbid, broken, and full of brick-duſt ſediment; whereas that is the beſt ſymptom it can have. For tho' it ſuppoſes the blood loaded with urinous ſalts and crudities; yet 'tis ſtill better they ſhould paſs off than continue in the habit. On the contrary, when thoſe that live freely, have quantities of pale, limpid and ſweet water, it is a certain ſign that the perſpiration it ſtopped; that neither

ther the firſt nor the ſecondary concoctions have been duly performed; that the chyle has not been ſufficiently broken, nor the finer ſecretions duly made by the leſſer drains; and that the urinous ſalts are ſtill retained in the habit. Upon which muſt needs enſue oppreſſion of ſpirits, chills upon the extremities, flying rheumatic pains over the body, headaches, cholicks and gripes. And here it may not be amiſs, to take notice of the difference of the pale water of hypochondriacal and hyſterical perſons, from that of thoſe who labour under a true diabetes, the apprehenſion of which terrifies ſo often the low and diſpirited perſons of the firſt claſs. The water of both has the ſame appearance, both in quality and quantity; at leaſt, in the firſt inſtance, they are both attended with the ſame ſinking and diſpiritedneſs. But in a true diabetes, there is a conſtant thirſt, a low but quick pulſe, the water is much ſweeter, and continues longer to come off in profuſe quantities, inſomuch, that ſometimes it is ſo violent as to run down the party in a few days. In hypochondriacal and hyſterical perſons, there is little or no thirſt, never a quick pulſe, but rather too low and ſlow a one, the flux ſoon ſtops of itſelf, or by any little diaphoretick medicine, and they are cold upon the extremities, which the others are not.

§ 8. That blueiſh and variegated film, which ſometimes looks like oil and fat ſwimming on the water of ſcorbutick and cachectic perſons, is nothing but the congregated

ſalts which are crowded ſo thick together, that they are ready to ſhoot into cluſters, much like the film of a *Lixivium, when ſtanding for the cryſtallization of fixed ſalts. The water which has a light cloud hanging almoſt from the top to the bottom, is of a bright amber colour, and about three quarters of the liquor taken down, is beſt, and a certain ſign of a due concoction, a juſt proportion of food, and a total abſence of repletion and crudity. And thoſe who live temperately, uſe due exerciſe, and enjoy a perfect ſtate of health, always make ſuch water.

§ 9. Thoſe who are ſubject to great quantities of limpid and pale water, ought to conclude, that their food has been too heavy in quality, or too much in quantity for their concoctive powers, or their labour too little; and that therefore, they ought to proportion both, for the future, with more caution and exactneſs, by living low for ſome time, or uſing more exerciſe. And to ſtop their flux of pale water, they ought to take a little Gaſcoign's powder, confection of Alkermes, or Sir Walter Raleigh's cordial at night, and drink liberally of ſmall warm ſack whey, with a few drops of ſpirit of Hart's-horn, to ſet the perſpiration in order again. Thoſe, on the other hand, who make high coloured, foul, and very

*i e. A Lye.

ry turbid water in ſmaller quantities, have either inflamed their blood too much with ſpirituous liquors, or loaded it with too great a quantity of Animal ſalts. To prevent thereſore, diſorders and diſeaſes, they muſt leſſen the quantity of their fleſh meat, and temper the heat of their wine with water. Elſe they will lay the foundation of ſome accute inflammatory, or dangerous chronical diſtemper.

§ 10. The worſt kind of water of all, is that of a dark brown or dirty red, in a ſmall quantity, and without any ſediment. This kind of water, in acute diſeaſes, always indicates inſuperable crudity, high inflammations tending towards mortification, and a dying languor in nature. And in perſons labouring under no viſible diſtemper at the time, an almoſt total debility of the concoctive powers, an inſeparable union of the conſtituent parts of the blood, the higheſt degree of crudity, and a deadneſs in all the animal functions: And if preceded by long continual exceſſes, requires the advice of a phyſician. I ſhall ſay nothing of coffee-coloured, bloody, wheyiſh, or purulent water, or that with white gravel, films, rags, or bits of broken membranes. They are well known to be nephritick, or ſymptoms of an ulcer ſome where in the urinary paſſages.

§ 11. There happens alſo an evacuation both by ſiege and urine, to ſome weak perſons of relaxed nerves, that extremely alarms the patient, and is not ſo readily accounted for in

mon* Ætilogy. It is when either a white tranſparent, viſcid ſubſtance, like jelly, is conſtantly voided by the bowels, more or leſs; or when a white, milky, glewy ſubſtance, like cream or laudable matter, ſettles in the water: both theſe appearances are commonly aſcribed to an ulcer in the guts, or in the kidneys, the very apprehenſion of which is almoſt ſufficient, in ſome low perſons, to bring on the diſtemper feared: and yet, I am very certain, there is neither ulcer nor true matter in either caſe, as I propoſe them. For where there is violent and acute pain, or matter of different colours or mixtures, there, very poſſibly, may be, nay, certain there is, an ulcer. But in the caſe I here intend, there is very little or no pain; no hectical paroxyſms, which always attend an inward ulcer; no bloody or ſanious mixtures, which always betray the inward ſore; no fetid ſmell to imply corruption. For the caſes I put at preſent, happen to perſons the leaſt capable of inflammation or impoſthumation, viz. to paralytick perſons, or thoſe of a natural tendency that way, to cold, vapouriſh perſons of low ſpirits and weak nerves, whoſe pulſe is low and ſlow, and their natural functions weak and languid; all which evidently ſhew, that theſe diſcharges cannot come from an ulcer. The firſt caſe I take to be either an obſtruction of ſome of

* That part of Phyſic which teaches the Cauſes of Diſeaſes

of the lacteals, whereby the chyle cannot be carried off in any ſufficient quantity, but paſſing through the guts, and its more watery part being evaporated, it becomes thick and gelatinous, and is thrown off at laſt with the remains of the food. Elſe it muſt be an obſtruction of thoſe glands of the guts, by which a viſcid matter for lubricating of them, is commonly ſecerned; by the impriſonment and evaporation of which matter, it thickens and turns like a jelly (as it does by cold, or overfeeding, in the glands of the mouth, throat and windpipe) and, at laſt, by the ſqueezing of the guts, is thrown off. And in the ſame manner, I take that milky ſubſtance ſubſiding in the water, in ſuch a caſe as I have mentioned, to ariſe from a relaxation of the glands of the kidneys and bladder, and other urinary paſſages; and that both are to be cured the ſame way other nervous diſtempers are cured, viz. by a proper regimen of diet, and a courſe of contracting, ſtrengthening, and volatile medicines.

§ 12. The inſenſible perſpiration, is the third evacuation to be conſidered. The ſtatical chair invented by Sanctorius, for examining the quantity of the perſpiration, however ingenious and delightful in ſpeculation, is too cumberſome and laborious to be of any great uſe in common life. 'Tis certain, however, that the free and full flowing of this evacuation, is as neceſſary to health as any of the groſſer; ſince in quantity it is at leaſt equal to both the forementioned; and an obſtruction there-

of, is generally the ſource of all acute diſeaſes, as it is a conſequence of all chronical ones. And therefore, I adviſe thoſe who are much abroad in Eaſterly and Northerly winds (which moſt of any obſtruct perſpiration) and have fluxes of white and pale water, to a ready Antidote to prevent the beginnings of theſe obſtructions.

§ 13. Dr. * James Keill has made it out, beyond all poſſibility of doubting, that catching of cold is nothing but ſucking in, by the paſſages of perſpiration, large quantities of moiſt air and nitrous ſalts, which, by thickening the blood and juices (as is evident from bleeding after catching cold) and thereby obſtructing, not only the perſpiration, but alſo all the other finer ſecretions, raiſes immediately a ſmall fever and a tumult in the whole animal œconomy; and, neglected, lays a foundation for conſumptions, obſtructions of the great Viſcera, and univerſal Cachexies. The tender therefore and valetudinary ought cautiouſly to avoid all occaſions of catching cold, and if they have been ſo unfortunate as to get one, to ſet about its cure immediately, before it has taken too deep root in the habit. From the nature of the diſorder thus deſcribed, the remedy is obvious; to wit, lying much a bed, drinking plentifully of ſmall warm ſack whey, with

* His Statica Britannica.

with a few drops of ſpirit of harts-horn, poſſet-drink, water-gruel, or any other warm ſmall liquors, a ſcruple of Gaſcoign's powder morning and night, Living low upon ſpoon-meats, pudding, and chicken, and drinking every thing warm: in a word, treating it at firſt as a ſmall fever, with gentle diaphoreticks; and afterward, if any cough or ſpitting ſhould remain (which this method generally prevents) by ſoftening the breaſt with a little ſugar candy, and oil of ſweet almonds, or a ſolution of gum ammoniac, an ounce to a quart of barley water, to make the expectoration eaſy; and going cautiouſly and well cloathed into the air afterwards. This is a much more natural, eaſy and effectual method, than the practices by balſams, linctus's, pectorals, and the like trumpery in common uſe, which ſerve only to ſpoil the ſtomach, oppreſs the ſpirits, and hurt the conſtitution.

§ 14. The ſureſt way of maintaining and promoting a due perſpiration, is, to take down no more food than what the concoctive powers are ſufficient to reduce into a due fluidity, and the expences of living require, to proſecute neceſſary exerciſe, and uſe the other aſſiſtances adviſed in the foregoing Chapters. Want of due reſt, and the refreſhment that follows upon it, ſtarting, toſſing, and tumbling a bed, are certain ſigns that the perſpiration is not duly carried on in the night ſeaſon. And therefore, in order to remedy this, a greater proportion of exerciſe, a greater degree of abſtinence, or ſome gentle domeſtic purge, muſt

muſt be had recourſe to the next day. Cholical pains, gripes and purging, much eructation and belching of wind, low ſpiritedneſs, yawning and ſtretching, are infallible ſigns that the perſpiration flows not freely and plentifully then. And therefore the ſame remedies ought to be proſecuted, as ſoon as an opportunity offers; elſe the party will ſuffer at laſt. Wind, as Sanctorius obſerves and demonſtrates, is nothing but obſtructed perſpiration: and yawning and ſtretching, are but convulſions of the proper muſcles and organs appointed by nature, the one for pumping up wind from the bowels, the other for preſſing upon the excretary ducts in the ſkin, to force out the ſluggiſh perſpirable matter. And it is beautiful to obſerve, how wiſely nature has contrived the ſpaſms, cramps and convulſions of the proper organs, to expel every noxious and extraneous body out of the habit. Thus coughing is a convulſion of the diaphragm, and muſcles of the breaſt, to throw out viſcid phlegm; vomiting of the ſtomach, (aſſiſted by the diaphragm and muſcles of the abdomen) to throw up its crudities, and thoſe of the bowels; or to expel ſand or ſtones from the kidneys. The throws of labouring women, are to bring off the burden. Sneezing is an effort of the proper muſcles to eject ſome noxious particles from the organs of ſmelling. Shivering and ſtretching to aſſiſt perſpiration; and yawning to pump up noxious wind. And even laughing itſelf, is an effort of the muſcles of the whole trunk, to throw off ſomething that its delicate membranes cannot bear. And, laſtly,

laſtly, hyſterical fits and convulſions, both in infants and perſons come to maturity, are but violent efforts, ſtruggles, workings, cramps and ſpaſms of all the muſcles of the whole body together, to expel, ſqueeze and preſs out the ſharp acrimonious wind, fumes, and vapours from the cavities of the whole machine.

§ 15. There is an evacuation incident to perſons of weak nerves, which could not conveniently come in under the general diviſion, becauſe it happens too ſeldom to make a new member of it. It is a diſcharge of thin rheum from the glands of the mouth, throat and ſtomach, and is called by ſome, a nervous or ſcorbutick ſpitting. It riſes ſometimes to the heighth of a petit flux de Bouche, as the French call it, and threatens ſome tender perſons, as they apprehend, with a conſumption, though it imply nothing leſs. We may obſerve ſome, who are ſtruck with a deep palſey, to flow at the mouth, and drivel down their breaſts; inſomuch, that the afflicted of this ſort, who are advanced in years, can ſcarce ſpeak intelligibly for the flux, 'till they have firſt emptied and cleaned their mouths. And this ariſes to ſo great a heighth, in ſome much broken paralytic perſons, that, upon the ſlighteſt occaſions, either of joy or grief, they are apt to run into a profuſion of tears, ſighs and ſobbings. And ſome ſorts of Ideots, and thoſe hyſterically momped, and moſt of thoſe who ſuffer from relaxed and weak nerves, are more or leſs ſubject to theſe ſalival diſcharges, eſpecially after exceſſes in diet. Hence the

the firſt ſort receive the appellation of ſnivellers or drivellers. And the difficulty of the cure of all the diſeaſes of weak nerves depends much on the quantity and conſtitution of this flux. For much and long ſpitting and running off of this rheum, implies a total relaxation of the whole nervous ſyſtem, and ſhews neither the firſt nor ſecond concoctions have been duly performed. I have frequently had occaſion to ſhew, how exceſſes in the quantity or quality of the food, in perſons of relaxed and weak nerves, begot a viſcid and groſs chyle, of which that part, which could not get thro' the lacteals, lay fermenting and putrifying in the alimentary paſſages, begot winds, gripes and cholicks, and at laſt wrought itſelf off like a purge; and that part, which got through the lacteals, and was received within the limits of the circulation, being too groſs and glewy to be mixed with the old maſs of the fluids, to circulate through the ſmalleſt veſſels, and to enter the fine perſpiratory glands, would neceſſarily be thrown into the wider, more ſpungy and looſe ſalivary glands, which are appointed by nature to ſecern the more glutinous parts of the fluids. And from thence this ſalivary inundation proceeds. The fact is, when thoſe of weak nerves, commit habitual exceſſes in their diet, the glands and ſmall veſſels of all the body are tumified, ſwelled and obſtructed thereby, as they needs muſt be. And it is from the preſſure of theſe enlarged glands, and the obſtructed capillary veſſels on the nerves, and patent blood veſſels, that moſt of the evils they ſuffer under proceed. But

more

eſpecially, are the glands appointed to draw off the more viſcid ſerous part of the blood, obſtructed and tumified thereby. Upon which account, as Baglivi adviſes, to enquire well into the ſtate of the tongue and mouth, in order to diſcover the condition of the ſtomach, guts and bowels; ſo I think it is highly reaſonable, in a chronical caſe, to have great regard to the condition of the eyes; and if a dead cold languor be obſerved in the hue or water of them (as jewellers ſpeak of diamonds) and more eſpecially if the lachrymal gland in the corner next the noſe, which I always narrowly inſpect; if, I ſay, this gland be found harder, or larger than ordinary, ſwelled and tumified, it muſt certainly be concluded, whatever elſe be in the caſe, there muſt be a relaxed ſtate of nerves, much vapours, weak natural functions, and a miſmanaged regimen. And it is from the obſtruction and ſwelling of this and the other glands, in and about the eyes, and their preſſure upon the optical nerves, and fine blood veſſels, that thoſe ſpots, flies, atoms, dimneſs, darkneſs, and confuſion of ſight, in vapouriſh and hyſterical people proceed. For this gland ſhews, that the whole ſerous glands in the upper regions of the body are, in proportion, tumified and ſwelled with viſcid humours through exceſs of diet; unleſs the perſon have ſuffered there by accident, or labours under ſome natural diſorders of the eyes. From the obſtruction and ſwelling of the ſalivary glands in the mouth, throat and gullet, proceed alſo thoſe choakings, gulping and ſtrangling, that hyſterick perſons ſo often com-

complain of. The wind and crudities lodged in their ſtomach and guts, and the reſt of the cavities of the body, preſſing to get vent upwards, are reſiſted and ſtopped in their paſſage by the diaphragm, whereby the inſpiration is ſtreightned, and, by the bulk of theſe glands throughout the gullet the way is intirely ſtopp'd; which raiſes ſuch a tumult and ſtruggle, as produces the mentioned ſymptoms; which I have not leiſure to detail here more minutely. Now this ſalivation or diſcharge of the thinner rheum, and that coughing and hawking of more viſcid phlegm, commonly called a nervous cough, as alſo the chincough of children, and all ſuch diſcharges of ſharp ſerum in perſons of weak and relaxed nerves, is an effort of nature to relieve them. And, if diſcreetly managed, and duly heeded, would prove a criſis to their diſorders and quite free them from their preſent * paroxyſms, and ſet the circulation and perſpiration, and conſequently the ſpirits, at freedom and liberty again. Some perſons moſt diſtractedly run to drams and cordials to remedy this evil, to ſtop the violence of this deluge, and to raiſe their drooping ſpirits. But it ſerves only to thicken the phlegm, ſhut up the mouths of the ſalivary glands cloſer, and ſo to perpetuate the evil they mean to cure. Others devour large quantities of high and generous foods, becauſe

* The ſharpeſt part of the ſuffering fit of a diſeaſe.

becauſe they find a little relief to their ſpirits, from the firſt run of the ſweet, thin, and ſpirituous chyle; but this is only adding fuel to the fire, and running on in a perpetual round of lowneſs and ſlavering. Whereas, would they ſuffer nature to act her own way, to carry on this critical diſcharge as far as it will go, without offering in the leaſt either to check or promote it; but by thin, light food, and cool liquors, in moderate, or rather under-doſed quantities, ſupport her in the manner the concoctive powers are ſufficient for; after ſhe had diſcharged all the crudities from the maſs of the fluids, by theſe emunctory glands, and thereby given a free paſſage to the wind to eſcape the way it tends, the ſalivation would leſſen gradually, and at laſt ſtop of itſelf. And if then towards the decline, a gentle vomit, to pump up the ſlow and viſcid remains of the wind and phlegm in the upper part of the alimentary paſſages, and afterwards a gentle ſtomachick warm purge, to ſcour the lower part of theſe tubes, were carefully adminiſtered; the patient would ſoon find a clear head, lightſome ſpirits, eaſe and freedom from pain and oppreſſion; the circulation and perſpiration would be ſoon brought to their natural and ſound ſtate, and health and cheerfulneſs reſtored together; unleſs a mortal or habitual ſpitting was the caſe, which I have ſometimes obſerved, as fatal and incurable as a true dropſy, or inveterate diabetes; all which owe their being to a deep ſcurvy, whereby the globular part of the blood is intirely broken, and the ſerum made a meer lixivium or lye.

Rules for Health and Long Life, drawn from the Head

Of EVACUATION.

1. COSTIVE ſtools are ſigns of over-heated blood, too ſpare feeding, ſlowneſs of digeſtion, or weakneſs of the guts.

2. Purging ſtools ſhew intemperate feeding. Too full a meal has the effects of a purge, fills the guts with wind, and gives gripes. Mercury, and even the bark, diaſcordium and treacle, if over-doſed, purge.

3. Head-aches, ſick ſtomachs, vapours, low ſpirits, gripes and cholicks, proceed from cramming; and are ever accompanied with looſe ſtools.

4. Thoſe that live temperately, have one regular ſtool a day. Thoſe who have more, exceed.

5. The cure of all relaxations of the nerves (the ſource of chronical diſeaſes) muſt neceſſarily begin at the ſtomach and guts.

6. The time from eating a meal, 'till its diſcharge, is three days, in thoſe that have one ſtool a day: ſix in thoſe that have but one in two days.

7. A groſs meal produces more diſorders, the

the day the excrements of it go off, than the day it is eaten.

8. A meal takes the ſame time to get thro' the habit by perſpiration, that its remains do to paſs through the guts.

9. The errors of the firſt concoctions cannot be mended afterwards.

10. Pain or relief, is not always the effect of the laſt meal or medicine, that was taken down.

11. Though cheeſe, eggs, milk and vegetable foods, may be hard to digeſt, without drinking of water, to ſome ſtomachs; yet their chyle is good, and produces no bad effects.

12. Turbid water with brick-duſt ſediment, proceeds from the critical diſcharge of what was preternaturally retained in the habit.

13. Pale ſweet water, from the urinous ſalts being yet retained.

14. There is great difference between hyſterick pale water, and that which proceeds from a diabetes.

15. That appearance of fat on the urine of ſome people, is nothing but a thin film of ſalts.

16. Bright amber coloured water, with a light ſediment riſing toward the top, amounting to three quarters of what is drank, is a ſign of good digeſtion.

17. Great quantities of pale water proceed from exceſs in the quantity of food, and want of exerciſe. The cure of it is performed by eating leſs, uſing more exerciſe, and taking ſome diaphoreticks, to ſet the perſpiration right.

18. High coloured turbid water in ſmall quantity, ſhews abundance of animal ſalts in the habit, or the immoderate uſe of ſpirituous liquors; and muſt be cured by vegetable food, and water, or other ſmall drink.

19. Dark brown water, or of a dirty red, is extremely dangerous, both in acute caſes, and in thoſe that ſeem at preſent to ail nothing.

20. Bloody purulent water, and full of films, is a ſign of nephritick ailments, ſtone and gravel.

21. The viſcid matter, like jelly, in the ſtools, and the viſcid milky ſubſtance, ſomewhat like matter, in the urine of ſome people of weak nerves, proceed from a corruption of the liquor of the mucous glands of the inteſtines, and of the bladder, and other urinary paſſages.

22. Ob-

22. Obſtruction of perſpiration is one ſource of acute diſeaſes, and a conſequence of chronical ones.

23. Catching of cold is an obſtruction of perſpiration, by the humid and nitrous particles of the air. It ſhould be cured by gentle diaphoreticks, and not by balſamick pectorals, which do no good but in the end of the cure, to promote expectoration from the lungs, if there be any occaſion for it.

24. Perſons of weak nerves, have often a critical flux of rheum from the glands of the mouth and throat, to a very large quantity, which, if not tampered with, brings them great relief.

CHAP. VI.

Of the PASSIONS.

§ 1. I Come now, in the order of my firſt propoſed method, to treat of the paſſions; which have a greater influence on health and long life, than moſt people are aware of. And that I may propoſe my ſcheme with the greateſt clearneſs I can, I will lay down ſome propoſitions or axioms, as the ground-work on which it is founded.

Prop. I. The ſoul reſides eminently in the brain, where all the nervous fibres terminate inwardly, like a muſician by a well-tuned inſtrument, which has keys within, on which it may play, and without, on which other perſons and bodies may alſo play. By the inward keys, I underſtand thoſe means by which the thoughts of the mind affect the body; and by the outward, thoſe whereby the actions or ſenſations of the body affect the mind. Both theſe affections may be called paſſions in a general view, as either part of the compound is acted upon.

Scholium. As a man is compounded of two different principles, ſoul and body, and as there are two

two different kinds of outward objects, by which these two different principles may be acted upon; to wit, matter and spirit; the passions in these two different views may be divided into spiritual and animal. As to the first branch of this division, since spirits (if I may be allowed there are any such beings) may be supposed to act upon one another, without the mediation of organical bodies (such perhaps was St. Paul's extasy, when he was wrapt up in the third Heavens; such was Moses's commerce with his Maker, when he spoke to God face to face; such must the influence of the Divine Grace be supposed; and all who allow of Revelation, admit, that the soul may be serene and tranquil, while the body is in distress and pain; and even all the stoick philosophy is grounded on this distinction) it must have a real existence in nature. And the other branch must also be allowed by all those, who cannot think brute animals mere machines, and who observe, that we have impressions made on our bodily organs, which affect us, sometimes, very deeply, even in our sleep. However these things be, it is sufficient for my purpose, that man is allowed to be a compounded being, on which outward objects may act, to abstract the consideration of the impressions made on the spirit, from those made on the body.

Prop. II. The union of these two principles in the compound, Man, seems to consist in laws pre-established by the author of nature, in the communications between bodies and

and ſpirits, as there are, no doubt, laws eſtabliſhed for ſpirits, in their commerce and actions upon one another. For every one knows there are laws of nature, eſtabliſhed by its author, for the actions of bodies upon one another.

Scholium. Theſe laws of the actions of the ſoul on the body, and of the body upon the ſoul, are never to be known to us, but by their effects; as the laws of nature in the actions of bodies upon one another, were firſt diſcovered by experiment, and afterwards reduced into general propoſitions. One law of the action of the ſoul on the body, &c. vice verſa, ſeems to be, that upon ſuch and ſuch motions produced in the muſical inſtrument of the body, ſuch and ſuch ſenſations ſhould ariſe in the mind; and on ſuch and ſuch actions of the ſoul, ſuch and ſuch motions in the body ſhould enſue; muſt like a ſignal agreed to between two Generals, the one within, the other without a citadel, which ſhould ſignify to one another what they have before agreed to, and eſtabliſhed between them; or like the key of a cypher, which readily explains the otherwiſe unintelligible writing. Beſides theſe paſſions and affections, which are involuntary.

Prop. III. As bodies are purely paſſive, and are acted upon by other bodies, conformable to the ſettled laws of nature; and ſpiritual beings, on the contrary, there is an active, ſelf-motive, ſelf-determining principle, by which it directs and manages itſelf with regard

gard not only to its own ſelf, and its own ſentiments; but alſo to its actions and influence on other beings without it, and their actions and influences on it. And this is the foundation of liberty, or freewill, in rational and intelligent beings.

Scholium. That this faculty or principle really exiſts, and is eſſential to ſpiritual beings, is as certain, as that there is motion in the univerſe, or that body and ſpirit are eſſentially different. For, that motion is not eſſential to bodies, is as certain as that bodies are impenetrable; and that the quantity of motion in the univerſe, may be, and is daily increaſed, is as much demonſtration as any Propoſition in Euclid. And if motion be, is, or may be increaſed, it muſt ariſe from ſpiritual beings. And he who can deny this, only ſhews himſelf ignorant of the principles of all true and juſt phyloſophy, and of the firſt elements of the ſyſtem of material and ſpiritual beings. For further conviction of this, and clearing up all poſſible objections and difficulties, I refer the reader to the learned and ingenious Dr. Clarke, in his anſwer to the inquiry into liberty, and his letters to Mr. Leibnitz, where he has treated this matter with the greateſt perſpicuity and juſtneſs. Beſides theſe now mentioned principles.

Prop. IV. As in bodies there is a principle of gravity or attraction, whereby, in Vacuo, they tend to one another, and would unite, according to certain laws and limitations eſtabliſhed

bliſhed by the Author of Nature; ſo there is an analogous principle in ſpirits, whereby they would as certainly, in their proper vacuity, be attracted by, tend to, and unite with one another, and their firſt author, centre, and the rock out of which they were hewn (to uſe a ſcripture phraſe) as the planets would to one another, and to the ſun. And this is nothing elſe but what in ſcripture is called charity.

Scholium. This propoſition is as certain as the rules of analogy are, which, in my opinion, are the foundation of all the knowledge we can have of nature, while we can ſee only a few links of the univerſal chain, and but a few disjointed parts of the grand ſyſtem of the Univerſe. The Author of Nature, who could create intelligent beings only in order to make them happy, could not leave them to ſo many different attractions, without implanting into their eſſence and ſubſtance, as an antidote to ſuch variety of diſtractions, an infinite tendency, bent and bias towards beings of the ſame nature, and towards himſelf, who was the cauſe and object of their felicity. And even in this our lapſed and forlorn eſtate, there remain evident footſteps of this principle yet uneffaced. Such are the checks of conſcience, natural affection, and the univerſal deſire of immortality, and dread of annihilation; what the world calls the ſeeds of honour and renown; all that concern and regard paid mere romantick heroes; and the worſhip beſtowed by all

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nations, who are not ſunk into mere brutality, on ſome ſuperior and inviſible powers. Theſe are remains of this principle, and its workings, ſufficient to ſhew its reality a poſteriori; as the laws of analogy, and the nature and attributes of the firſt Being, ſhew it a priori. Thoſe who admit of revelation, cannot doubt of it for a moment; for * Moſes calls it, a law engraven on the heart of man, and † St. Paul, the greateſt perfection of human nature.

Coroll. 1. Hence the true nature of ſupreme ſpiritual good and evil may be diſcovered. For if there be impreſſed on ſpiritual beings, an infinite tendency bent and bias, to be re-united with their Divine original, and the place in the Divine ſubſtance out of which they were formed (if I may ſpeak ſo in a figurative ſenſe) then their being finally united with this their Divine original, is the ſupreme ſpiritual good, and their ſeveral approaches toward this union, are inferior ſpiritual goods; as the being finally ſeparated from it, is the ſupreme ſpiritual evil, and the ſeveral ſteps toward this ſeparation, inferior ſpiritual evils. And the means of this union and ſeparation, are moral good and evil.

Coroll. 2. By Schol. of Prop. 1. the moſt general diviſion of the paſſions, was into ſpiritual

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* Deut. xxx. 14.

† 1 Cor. xiii. ult.

tual and animal. As, in the firſt ſenſe, paſſion may be defined, the ſentiments produced on the ſoul by external objects, either ſpiritual ones immediately, or material ones, by the mediation of the organs of the body: ſo, in the ſecond ſenſe, paſſion may be defined, the effect produced by ſpirits or bodies, immediately on the body. And ſince outward objects may be conſidered as goods or evils, the moſt natural diviſion of the paſſions (whether ſpiritual or animal) as they regard theſe objects, is into the pleaſurable and the painful; which exhauſts their whole extent. And in this ſenſe all the paſſions may be reduced to love and hatred, of which joy and ſorrow, hope and fear, &c. are but different modifications or complexions, as they may be called. I do not deſcend to a more particular account, not intending an accurate treatiſe on the paſſions, but only to lay a foundation for ſome general obſervations on them, as they regard and influence health and long life.

§ 2. In relation to the organical inſtruments of the body, and the effects wrought on them, or the diſorders brought upon them, the paſſions may be divided into acute and chronical, after the ſame manner, and for th ſame reaſon, as diſeaſes are. Thea cute paſſions, whether pleaſurable or painful, have much the ſame effect, and work much after the ſame manner, as acute diſeaſes do. They effect a briſk and lively circulation of the fluids, criſp up and conſtrict the ſolids for ſome ſhort time. Thus ſudden guſts of joy or grief,

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pleaſure or pain, ſtimulate and ſpur the nervous fibres, and the coats of the animal tubes, and thereby give a celerity and briſker motion to their included fluids, for the ſame time. And the functions of the heart and lungs being involuntary, they have their more immediate effects upon them. Thus both ſudden joy and grief, make us breathe ſhort and quick, and make our pulſe ſmall and frequent. The retaining our breath for ſome time (for ſo far our breathing is voluntary) to reflect more intenſely upon the painful object, forces at laſt a ſtrong expiration, which becomes a ſigh. Thus a ſudden painful idea, makes a quicker circulation of the blood, and thereby throwing a greater quantity thereof upwards, thro' the proportionally larger branch of the aorta, makes it appear in the ſuperficial veſſels of the face, neck and breaſt, and ſo produces a bluſh, which, when longer continued, and being very ſtrong, is diſperſed over the whole ſurface of the body. Hence the obſervation of bluſhing at the back of one's hand; and the reaſons why we ſigh upon ſome occaſions, and bluſh upon others, depend upon the different ſtructure of the organs of pulſation and reſpiration. A quick ſurpriſing pain of mind acts upon the heart, becauſe the motion of the heart is altogether involuntary; ſo that a ſudden conſtruction takes place there immediately to increaſe the pulſe. Whereas we have ſome power over the breathing; we can ſtop or ſuſpend it for a time; and when we are thinking intenſely, our attention partly makes us hold our breath; and hence enſues ſighing

rather than bluſhing. For the pain being ſlow, quickens the pulſe more gradually: But if it continues long, both actions of both organs are reſpectively produced; and hence it comes to paſs, that upon anxiety, concern, and earneſt expectation, the pulſe is found quick and ſmall; and the breath quick and difficult, as experience ſhews. The ſame principles will account for the effects of fear and anger, which make us change colour, and look red or pale, as the blood is accelerated or retarded in its courſe. The ſudden guſts of theſe paſſions being thus accounted for, when they become extreme, they drive about the blood with ſuch a hurricane, that nature is overſet, like a mill by a flood: ſo that what drove it only quicker round before, now intirely ſtops it, and renders the countenance pale and ghaſtly. Sudden and great fear and grief, do ſo convulſe the nervous ſyſtem, that ſometimes they alter the poſition of the parts, and fix them in a new one. Thus the hair ſtands on end in a fright, and the whole ſyſtem of the nerves becomes ſo rigid and ſtiff, as to loſe their elaſticity; whereby the animal functions are ſtopped at once; and fainting, and ſometimes death, enſues.

§ 3. The chronical paſſions, like chronical diſeaſes, wear out, waſte and deſtroy the nervous ſyſtem gradually. Thoſe nerves which are neceſſary for conſidering, brooding over, and fixing ſuch a ſet of ideas on the imagination, being conſtantly employed, are worn out, broken and impaired. The reſt by diſ-

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uſe, become reſty and unactive, lifeleſs and deſtitute of a ſufficient flux of warm blood and due nouriſhment. And thus the whole ſyſtem languiſhes and runs into decay. Thus ſlow and long grief, dark melancholy, hopeleſs natural love, and overweening pride, (which is an outrageous degree of ſelf love) impair the habit, by making the proper ſeaſons of neceſſary food and due labour be neglected, and thereby depriving the natural functions of their wonted ſupplies, overworking ſome part of the nervous ſyſtem, and leaving the other to ruſt, and become reſty for want of uſe. Some of theſe paſſions, as love, grief and pride, when very intenſe and long indulged, terminate even in madneſs. The reaſon is, as I have been ſaying, becauſe long and conſtant habits, of fixing one thing on the imagination, begets a ready diſpoſition in the nerves to produce again the ſame image, 'till the thought of it become ſpontaneous and natural, like breathing, or the motion of the heart, which the machine performs without the conſent of the will; and alſo a diſability or * tetanus enſues on the other parts, juſt as the Faquiers in India, fix one or both hands by long holding them up, ſo as that they cannot bring them down again. There is a kind of melancholy, which is called religious, becauſe it is converſant about matters of religi-

* Immobility.

on; although, often the perſons ſo diſtempered have little ſolid piety. And this is merely a bodily diſeaſe, produced by an ill habit or conſtitution, wherein the nervous ſyſtem is broken and diſordered, and the juices are become viſcid and glewy. This melancholy ariſes generally from a diſguſt or diſreliſh of worldly amuſements and creature comforts, whereupon the mind turns to religion for conſolation and peace: but as the perſon is in a very imperfect and unmortified ſtate, not duly inſtructed and diſciplined, and ignorant how to govern himſelf, there enſues fluctuation, and indocility, ſcrupuloſity, horror and deſpair.

§ 4. Since the mind reſides, as has been ſaid, in the common ſenſory, like a ſkilful muſician by a well tuned inſtrument; if the organ be ſound, duly tempered, and exactly adjuſted, anſwering and correſponding with the actions of the muſician, the muſick will be diſtinct, agreeable and harmonious. But if the organ be ſpoiled and broken, neither duly tuned, nor juſtly fitted up, it will not anſwer the intention of the muſician, nor yield any diſtinct ſound, or true harmony. Thoſe therefore who are tender and valetudinary, lead ſedentary lives, or indulge contemplative ſtudies, ought to avoid exceſſes of the paſſions, as they would exceſſes in high food, or ſpirituous liquors, if they have any regard to health, to the preſervation or integrity of their intellectual faculties, or the bodily organs of them. As the paſſions, when

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ſlow and continued, relax, unbend, and diſſolve the nervous fibres; ſo the ſudden and violent ones ſcrew up, ſtretch and bend them, whereby the blood and juices are hurried about with a violent impetuoſity, and all the ſecretions, are either ſtopped by the conſtrictions, cramps and convulſions begot by them, or are precipitated, crude and unconcocted, and ſo beget, or, at leaſt, diſpoſe toward inflammations, fevers, or mortifications. Hatred, for example, anger and malice, are but degrees of a frenzy, and a frenzy is one kind of a raging fever. From all which it is plain, the violent and ſudden paſſions, are more dangerous to health, than the ſlow and continued, as acute diſeaſes are more deſtructive than chronical.

§ 5. To ſhew yet farther, the influence of the paſſions on the animal œconomy, let us conſider the different conſtitutions of men. Thoſe who have very ſpringy, lively, and elaſtick fibres, have the quickeſt ſenſations, a weaker impulſe producing a ſtronger ſenſation in them. Theſe generally excel in the animal faculty of imagination. Hence the Poet,

——* Genus irritabile Vatum.

And therefore, your men of imagination are

* Poets are ſoon provoked.

generally given to ſenſual pleaſure, becauſe the objects of ſenſe yield them a more delicate touch, and a livelier ſenſation, than they do others. But if they happen to live ſo long (which is hardly poſſible) in the decline of life they pay dearly for the greater bodily pleaſures they enjoyed in the youthful days of their vanity. Thoſe of rigid, ſtiff and unyielding fibres, have leſs vivid ſenſations, becauſe it requires a greater degree of force to overcome a greater reſiſtance. Thoſe excel moſt in the labours of the underſtanding, or the intellectual faculties, retain their impreſſions longeſt, and purſue them fartheſt; and are moſt ſuſceptible of the ſlow and laſting paſſions, which ſecretly conſume them, as chronical diſeaſes do. And laſtly, thoſe whoſe organs of ſenſation are (if I may ſpeak ſo) unelaſtick, or intirely callous, reſty for want of exerciſe, or any way obſtructed, or naturally ill formed, as they have ſcarce any paſſions at all, or any lively ſenſations, and are incapable of laſting impreſſions; ſo they enjoy the firmeſt health, and are ſubject to the feweſt diſeaſes: ſuch are ideots, peaſants and mechanicks, and all thoſe we call indolent people.

§ 6. We have before ſhewn, that weak limbs, and all the bodily organs, may be ſtrengthened and repaired by proper exerciſe. And there is no doubt to be made, but the organs of ſenſation, and thoſe the mind uſes in its intellectual operations, may be likewiſe improved, ſtrengthened and perfected by conſtant uſe, and proper application. And if by exceſſes,

exceſſes, an original bad conformation, or any accident, theſe organs come to be ſpoiled, or by the bad ſtate of the juices, they be weakened in their functions; then the medicinal and chirurgical arts may take place, and come in play. But if the paſſions be raging and tumultuous, and conſtantly fuelled nothing leſs than He, who has the hearts of men in his hands, and forms them as a potter does his clay, who ſtills the raging of the ſeas, and calms the tempeſts of the air, can ſettle and quiet ſuch tumultuous, overbearing hurricanes in the mind, and animal œconomy. Without ſuch a miracle, ſince the ſoul and body act mutually upon one another, and the tabernacle of clay is the weakeſt part of the compound, it muſt at laſt be overborn and thrown down.

§ 7. In ſuch a wretched caſe I know no remedy, but to drown all other paſſions in that ſpiritual one of the love of God. The reaſonableneſs and juſtneſs of which proceeding, and (what may ſeem a paradox) the uſefulneſs of it to health, and its benign influence on the animal œconomy, I ſhall endeavour to demonſtrate. Spiritual love is that principle analogous to attraction, ſpoken of in Prop. IV. It is the tendency, bias or impulſe of the minds of men and other ſpirits, toward the moſt amiable objects, communicated by their Creator in their original formation, by virtue of which, they conſtantly tend, preſs and urge to unite (and, if obſtacles were removed, would unite) with one another, and be all united

ted with their origin. This principle indeed, in this lapſed eſtate of man (where it is overlaid and buried under rubbiſh, involved in ſo many other attractions, and ſtifled with ſuch letts and contrarieties, that its action is felt but juſt enough to know that it is, and wants to be awaked with labour, and excited with violence, as the ſcripture mentions, the taking the kingdom of Heaven by force) on its firſt developement and expanſion, and in its firſt exerciſes, may be called a ſpiritual paſſion, as it is the firſt motions, endeavours and velleities toward the love of God or charity. But in its advances, and final perfection and conſummation, it diſcovers itſelf to be a faculty, quality, or inherent power in the ſoul, whereby it will act without ſolicitation, motive or direction. As a ſtone in a wall, faſtened with mortar, compreſſed by ſurrounding ſtones, and involved in a million of other attractions, cannot fall to the earth, nor ſenſibly exert its natural gravity, no, not ſo much as to diſcover there is ſuch a principle in it; juſt ſo, the intelligent ſoul, in this her lapſed eſtate, being drowned in ſenſe, chained and fettered by ignorance and perverſeneſs, drawn and hurried away by the devil, the world and the fleſh, is diſabled from exerting this inherent and innate principle of re-union, and wants ſufficient light on the underſtanding, and a right turn of the will, to be put in a capacity of exerciſing it. But in its proper vacuity, and being freed from theſe letts and impediments, it would mount towards its original, like an eagle toward the ſun. Amiabi-

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lity, pulchritude or beauty, is as much the peculiar and proper object of this affection of the mind, as light, or a luminous body, is of vision; for deformity, as such, can never be loved. And beauty or perfection, is, in reality and just philosophy, nothing but analogy, order, or just proportion. From hence it necessarily follows, that in the scale of beings, all objects ought to be loved in proportion to their degree of beauty, symmetry or perfection. And consequently, the highest perfection ought to be loved with the highest degree of love, and the several subordinate degrees of perfection, with proportionate degrees of this affection of the mind. And since finite, when compared with infinite, vanishes quite, or becomes nothing; it follows necessarily (since there is, and can be, but one object that is infinite, good and perfect, and all others are but created, and finite goods; that is, in comparison they are nothing) that, according to the eternal and immutable laws of analogy, the one supreme good, endued with infinite perfection, ought to be loved with a love infinitely superior to our affections for other things, or (which is the same thing in other words) that, in comparison, our love to the Author of our being, ought to be infinite; and that to ourselves and other objects, as being finite creatures, none at all. This is the true philosophy of this matter, and as much a demonstration, as any thing in numbers or geometry possibly can be; however it may be received by men of self love and carnal minds.

§ 8. Yet

§ 8. Yet I would not be ſo underſtood, as if I condemned all ſubordinate and duly proportioned regards for ourſelves, and other objects about us, that are neceſſary for our ſupport and accommodation in our preſent ſtate. No! there is a juſt and laudable ſelf love, as well as a falſe and vicious one. If we love ourſelves, as we love our neighbours; if we love ourſelves as God loves us; if we love ourſelves as we deſerve to be loved by the infinitely perfect Being; if we love ourſelves with a juſtly proportioned, and duly ſubordinate love: that is, if we love ourſelves with a finite, and Him with an infinite love, or a love increaſing, and going on in infinitum, that has neither limits nor end: then we love ourſelves as we ought; This ſelf love is juſt and laudable, and has its due and proper degree of reality and exiſtence, in the nature of things. Perfection, or an object perfect in its kind, or one that we think ſo, is the proper object of our love. And as in due analogy, proportion and order, infinite perfection requires infinite love, or the higheſt degree of love we can give it; ſo all other objects are to be loved with a degree of love proportioned to their perfection. And ſince a Being of infinite perfection can be but one, and all other beings can have but a finite degree of perfection, we muſt love them but with a finite love; or, the proportion of our love to Him and them, ought to be, as infinite is to finite. That is, comparatively we ought to love them with no love at all; but abſolutely (or, without comparing created things, to the infinitely perfect Being) with their proper degree of

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finite love, according to their rank in the ſcale of beings.

Coroll. Though from the nature of the demonſtration I have given, that God is to be loved, it is evident he is to be loved infinitely for Himſelf, and his own infinite perfections, abſtracting from all other conſiderations, even that of our own happineſs, in the enjoyment of, or union with Him; yet it is certain, theſe two, our love to God, and our own happineſs, cannot be actually ſeparated. Pleaſure conſiſts in this, that the ſoul and body are affected, by the objects that produce it, with an harmonious and commenſurate action or touch; for in their original and uncorrupted make, as they came from the hands of their Creator, both ſeparately, and each by themſelves, and alſo in their actions on one another, all was harmony and concord. As to the body; as nothing but a muſical or commenſurate touch, can affect it with pleaſure, and as a diſcordant and uncommenſurate ſtroke creates a jarring, grating and obſtruction, which is pain (this is evident in hearing, where the agreeable ſenſations of ſonorous bodies, are altogether harmonious; Sir Iſaac Newton, has made it plain in viſion; and, no doubt, it is ſo in all the other ſenſes) ſo likewiſe as to the ſoul; truth, and beauty or perfection, are the only objects that give pleaſure to the underſtanding and will, its two cardinal faculties. And theſe are nothing but harmony, or juſt proportion in the reſpective objects. And we have ſhewn, that the union

of

of the ſoul and body (or life, the ſo much coveted good) conſiſts in a kind of harmonia preſtabilita (though a kind very different from Mr. Leibnitz's) whereby an harmonious touch or action upon either of them, produces a pleaſurable ſenſation. Now as beauty or perfection gives pleaſure to both the parts of the compound, and as nothing but the higheſt degree of perfection or beauty, can give the greateſt pleaſure, i. e. happineſs; it neceſſarily follows, that ſpiritual love, or the love of God, as it is the only means of uniting us with the one Being, who is infinitely perfect, is alſo the only means of making us infinitely happy.

§ 9. As to the ſecond thing propoſed concerning ſpiritual love, however foreign theſe metaphyſical ſpeculations concerning it may ſeem, to a diſcourſe about health and long life; yet, if ſteadily believed, and their natural conſequences reduced to practice, they would not only become the moſt effectual means to prevent diſeaſes, but alſo, the moſt of any thing, promote health and long life. For, firſt, were our love proportioned to the order and analogy of things; were our love to the ſupreme good infinite, and that to others, in compariſon, none at all; we ſhould have but one ſingle view in all our thoughts, words and actions, viz. The promoting and raiſing that ſupreme love, to its due degree and elevation: whereby all anxiety, carking care, and ſolicitude about other things (the ſource of all our miſeries, and of many bodily diſeaſes) would be cut off all at once. Secondly, ſince love

love always begets reſemblance of manners; ſince the object of this love is infinitely perfect; if we loved him in the ſupreme degree, we ſhould infinitely endeavour to reſemble him; whereby hatred and malice, luxury and lewdneſs, lazineſs, and all the other ſeeds of bodily diſeaſes, would be altogether deſtroyed. Thirdly, ſince ſpiritual love is not only the nobleſt, but alſo the moſt joyful and pleaſant affections of the mind; ſince the object of our ſupreme love (as an inſpired poet expreſſes it) has fulneſs of joy in his preſence, and rivers of pleaſures at his right hand for ever; and ſince our joy and happineſs will always riſe in proportion to our love; the placing our ſupreme love on the ſupreme good, would render us infinitely joyful, ſerene, calm and pleaſed; than which certainly, no man can imagine a more effectual means of health and long life.

RULES of HEALTH and LONG LIFE, drawn from the Head

Of the PASSIONS.

1. THE paſſions have a greater influence on health, than moſt people are aware of.

2. All violent and ſudden paſſions, diſpoſe to, or actually throw people into acute diſeaſes; and ſome times the moſt violent of them bring on ſudden death.

3. The ſlow and laſting paſſions, bring on chronical diſeaſes; as we ſee in grief, and languiſhing hopeleſs love.

4. Therefore the ſudden and acute paſſions are more dangerous than the ſlow or chronical.

5. Men of lively imaginations and great vivacity, are more liable to the ſudden and violent paſſions and their effects.

6. Thoughtful people, and thoſe of good underſtanding, ſuffer moſt by the ſlow, and ſecretly conſuming paſſions.

7. The indolent and the thoughtleſs, ſuffer leaſt from the paſſions: the ſtupid and ideots, not at all.

8. The

8. The diſeaſes brought on by the paſſions, may be cured by medicine, as well as thoſe proceeding from other cauſes, when once the paſſions themſelves ceaſe, or are quieted. But the preventing or calming the paſſions themſelves, is the buſineſs, not of phyſick, but of virtue and religion.

9. The love of God, as it is the ſovereign remedy of all miſeries, ſo, in particular, it effectually prevents all the bodily diſorders the paſſions introduce, by keeping the paſſions themſelves within due bounds; and, by the unſpeakable joy, and perfect calm, ſerenity and tranquility it gives the mind, becomes the moſt powerful of all the means of health and long life.

CHAP. VII.

Containing OBSERVATIONS, that came not naturally under the foregoing Heads.

§ 1. MENTION having been ſo often made of chronical, and ſometimes of acute diſtempers, it may be convenient here, to ſuggeſt to the readers, as clear an account of their nature and difference, as I poſſibly can. Acute diſtempers, then, are underſtood, ſuch as within ſome ſhort limited time have their periods, either of a perfect criſis, and ſubſequent recovery, or of putting an end to the diſtemper and life both together; and are therefore called quick, ſharp or acute diſtempers, whoſe ſymptoms are more violent, their duration ſhorter, and their periods more quick, either of ſudden death, or a glorious victory over the diſeaſe. Theſe are generally limited within forty days. And thoſe that run out longer, turn into chronical diſtempers, whoſe periods are more ſlow, their ſymptoms leſs ſevere, and their duration longer. They too (if new fuel were not adminiſtered to them) would, by the courſe of nature and the animal œconomy, have their periods, and terminate at the laſt. The viſcidity of the juices, and the flaccidity of the fibres, would, in a great meaſure, and to ſome very tolerable degree, by proper remedies,

dies, and a due regimen, be removed, and the party recover in theſe, as well as acute caſes. But this requiring long time, much care, and great caution, unwearied patience and perſeverance, and ſo long a courſe of ſelf denial, as few people are willing to undergo, it is become the reproach of phyſick and phyſicians, that acute caſes cure themſelves (or rather nature cures them) and chronical caſes are never cured. But both the branches of the reflection are equally falſe. In the firſt, art and cure, judiciouſly applied, will always alleviate the ſymptoms and ſuffering, will help on nature to the relief ſhe points out, and quicken the criſis, which it will conſtantly bring about, if the diſtemper is not too ſtrong for the conſtitution. And even then it will mitigate the pain, and lay the patient gently and eaſily down. But in the laſt caſe, if due care be had, to follow timeouſly the advice of an honeſt and experienced phyſician, a period certainly may be brought about to moſt chronical diſtempers, where the great viſcera are not ſpoiled and deſtroyed. The failing is in the patient himſelf, who will not, or cannot deny himſelf for a time ſufficient to bring about the cure. Some chronical diſtempers indeed are ſuch, either by having gone too far, or by being hereditary, and interwoven with the principles of life, as never to be totally overcome. And then it is a piece of great wiſdom, to know how far their conſtitution will go, and ſit down contented with that meaſure of health their original frame will admit of. But of this I am morally certain, if the rules and cautions laid down in this trea-

tiſe, be carefully, ſteadily, and conſtantly obſerved, few chronical diſtempers but will receive ſuch relief, and alleviation by them, as to make life tolerably eaſy, and free from grievous ſufferings: and in the mentioned caſe, that is all that is left for art to do. But in other chronical diſtempers taken in due time, where the viſcera are not quite ſpoiled, they would infallibly bring about a final period, and perfect cure. The moſt certain diſtinguiſhing mark of an acute diſtemper, is, to have a quick pulſe; that of a chronical, to have a ſlow one. The firſt will exhauſt the fluids, and wear out the ſolids in a ſhort time; whereas the laſt will require a longer time to produce the ſame effect. Some chronical diſtempers, eſpecially towards the laſt and fatal period, turn acute. And ſome acute ones terminate in chronical diſtempers. But this mark will not only keep them diſtinct; but alſo point out, when acute diſtempers have chronical remiſſions or intermiſſions, and when chronical diſtempers have acute fits or paroxyſms.

§ 2. Some perſons, who are extremely healthy and ſound during their younger days, about, or ſoon after the meridian of life (that is, about thirty-five, or thirty-ſix, according to the obſervation of an inſpired King) fall into chronical diſtempers, which cut them off in few years, or make them miſerable all the reſt of their lives. Thus conſumptions prove mortal to ſome about that time. Thus ſtone and gravel, gout and rheumatiſm, ſcurvy and dropſy

dropsy, King's-evil and skin diseases either make their first appearances, or shew themselves in their true type about this time of life. The reason is, while the juices are sweet, sufficiently thin and fluid, but especially while the solid organs, the membranes and fibres, are yet but unfolding, stretching and drawing out to their full dimensions; any acrimony, sharpness, or corroding humour, can affect them no other way, than by making them vibrate, and so extend themselves farther and farther. For as pain, so these sharp salts by their twitching and irritation on the tender fibres, make them only contract, and so draw at both extremities, and thereby unfold and extend themselves farther. So while the original foldings and complications of the solids are not yet quite extended, this irritation serves only to draw them out, and does not hurt them, 'till they are arrived at their full extent, which generally happens about five-and-twenty. It takes a due time after that for these sharp humours to exalt themselves to their utmost acrimony, to corrupt and putrify the juices, and also some more time to wear out, to obstruct and break the great organs, and their smaller capillary vessels. The sum of all which, brings the periods of the great attacks of these distempers to the mentioned time of life. Those in whom the original taint is more deeper and more radicated, and the natural constitution weaker, suffer under these attacks sooner. And those in whom it is slighter and more superficial, and whose complexion is stronger and

and more hardy, hold out longer. But the generality ſuffer firſt, eminently, about the meridian of life. Hence the common obſervation of thoſe that die of a genuine conſumption, that they begin to feel it firſt before thirty-ſix.

§ 4. There is no chronical diſtemper whatſoever, more univerſal, more obſtinate, and more fatal in Britain, than the ſcurvy, taken in its general extent. Scarce any one chronical diſtemper but owes its origin to a ſcorbutick cachexie, or is ſo complicated with it, that it furniſhes its moſt cruel and moſt obſtinate ſymptoms. To it we owe all the dropſies that happen after the meridian of life, all diabetes, aſthma's, conſumptions of ſeveral kinds, many ſorts of cholicks, and diarrhæa's, ſome kinds of gouts and rheumatiſms, all palſies, various kinds of ulcers, and, poſſibly, the cancer itſelf, and moſt cutaneous foulneſſes, weakly conſtitutions, and bad digeſtions, vapours, melancholy, and almoſt all nervous diſtempers whatſoever. And what a plentiful ſource of miſeries theſe laſt are, the afflicted beſt can tell. And ſcarce any one chronical diſtemper whatſoever, but has ſome degree of this evil faithfully attending it. The reaſon why the ſcurvy is ſo * endemick a diſtemper, and ſo fruitful of miſeries, is, that it is produced by cauſes moſtly ſpecial and particular to this iſland;

* Peculiar to this Country.

land; to wit, the indulging ſo much in animal food, and ſtrong fermenting liquors, in contemplative ſtudies, and ſedentary profeſſions and employments (and thence the want of due labour and exerciſe) together with the nitrous moiſture of an iſland, and the inconſtancy and inclemency of the ſeaſons thence ariſing. I have had many occaſions to ſhew, how ſuch cauſes muſt neceſſarily and naturally produce ſuch effects. I will here only touch the matter ſlightly, to point out the connexion. Animal foods and ſtrong liquors to exceſs, and with continuance, muſt load and charge the fluids with their ſalts. Want of due exerciſe muſt ſuffer theſe to unite in cluſters, and increaſe their bulk in the ſmall veſſels. Their larger bulk, and greater acrimony, thence ariſing, muſt increaſe the viſcidity of the fluids, by breaking the blood globules, and ſo coagulating the maſs, and at laſt obſtruct the finer pipes, and all the ſmaller glands: whereby the tone of all the elaſtick fibres muſt be interrupted and broken, and their vibrations ſtopt at every obſtructed gland and capillary veſſel, and an univerſal diſorder produced in the whole animal œconomy. And this diſorder will operate, and ſhew itſelf in ſymptoms ſpecial and particular, according to the ſpecial and particular make and conformation of the parts, the weakneſs of the ſtrength of the organs, the particular miſmanagements, and preciſe ſtate of the air the party lives in. And the detail of theſe general cauſes applied to particular perſons, muſt produce the reſpective diſeaſes mentioned. In a word, the ſcurvy is a kind

of catholick diſtemper here in Britain, ariſing from conſtant and general cauſes, from the cuſtoms of the people, and from the nature of the climate, which renders the ſerous part of the blood too thick and glewy, breaks and divides the union of the globulous parts, obſtructs the ſmall veſſels, and deſtroys the ſpringineſs and elaſticity of the fibres. So that moſt chronical diſtempers, can be little elſe, but branches and cions from this root, which (like Pandora's box) is ſo fruitful of variety of miſchiefs. And its ariſing from the climate and cuſtoms of the people, is the reaſon why chronical diſtempers are ſo frequent in Britain, to what they are in warmer climates (which, by a free perſpiration and lighter diet, not only prevent thoſe diſeaſes in their own inhabitants, but univerſally cure thoſe of our iſland who are afflicted with them, if they flee to thoſe regions any reaſonable time before nature be quite worn out). For though the inhabitants of Britain, live, for the moſt part as long, or rather longer, than thoſe of warmer climates; yet ſcarce any one, eſpecially thoſe of the better ſort, but becomes crazy, and ſuffers under ſome chronical diſtemper or other, before they arrive at old age. The ſame reaſon is to be aſſigned for the frequency of ſelf-murders here, in England eſpecially, beyond any other country. For few have grace and reſignation enough, to ſuffer patiently the laſting pains of a chronical diſtemper, or the yet more torturing and crucifying anguiſh of a perpetual diſperitedneſs; though I have obſerved generally, and have good reaſon to con-

conclude univerſally, that all ſelf-murderers are firſt diſtracted and diſtempered in their intellectual faculties. Notwithſtanding the diffuſiveneſs and univerſality of this diſeaſe, ſo that ſcarce a ſingle individual of the better ſort is altogether free from it; yet I never once in my life, ſaw it totally extirpated in thoſe who had it to any degree, ſo as to be intirely free from it all the reſt of their lives after; but that it ſtill appeared, and ſprang up again in ſome ſymptom or other, and at laſt brought forth that grand one, which put a final period to all their ſufferings. One good reaſon for this is, that it requires a regimen and conduct ſo intirely contrary and oppoſite to the natural habits and cuſtoms, and the univerſal bent and appetites of the inhabitants of this iſland, that it becomes a kind of perpetual ſelf-denial to them; which the Britiſh nation, in general, does not mightily admire. Another reaſon is, that fine folks uſe their phyſicians, as they do their laundreſſes, ſend their linen to them to be cleaned, in order only to be dirtied again. Nothing leſs than a very moderate uſe of animal food, and that of the kind which abounds leaſt in urinous ſalts (as moſt certainly the young and the lighter coloured do) and a more moderate uſe of ſpirituous liquors, due labour and exerciſe, and a careful guarding againſt the inconſtancy and inclemency of the ſeaſons, can keep this hydra under. And nothing elſe than a total abſtinence from animal foods, and ſtrong fermented liquors, can totally extirpate it. And that too, muſt be begun early; before, or ſoon after the meridian of life; or elſe

there

there will remain too little oil in the lamp, the ſpirits will ſink too far, ever to be recovered again; and the remaining part of life, will be too ſhort for ſo total a change as muſt be made. So that thoſe who ſuffer greatly under this Britiſh diſtemper, muſt be contented to bear and forbear a little, and muſt expect no greater degree of health, than their time of life, the nature of their diſeaſe, and the ſtate of their conſtitution will admit of. But ſtill a great moderation in animal foods, and ſpirituous and fermented liquors, due exerciſe, and a care to fence againſt the injuries of the weather, will make life tolerably eaſy; eſpecially if ſome gentle domeſtick purges be interſperſed. The ſeeds and young ſprouts of vegetables, have ſcarce any groſs, fixed, or eſſential ſalts at all in them. This is not only evident from the reaſons formerly given (becauſe they are young, or the nouriſhment appointed by nature for young vegetables; for the earth is only a proper neſt or matrix for them; and the ſun's heat ſerves them inſtead of incubation) but upon *trial and examination, they yield none, being too light and thin to calcine and incinerate, and the ſalts too volatile (and conſequently, ſmall and fit to paſs by perſpiration, and thereby can be no way injurious to human conſtitutions) to endure the fire; which full grown plants, their ſtalks

*See Lowth. Abridg. of Phil. Tranſ. v. 2. page 661.

ſtalks and wood readily do. And in unfermented liquors, the ſalts are ſo enveloped, that they cannot unite to form a ſpirit, and are ſo ſheathed, by particular coats of the materials of the vegetable, that they can ſcarce do any harm (except when they exceedingly abound) to animal bodies. Hence it comes to paſs, that a vegetable diet for a few weeks or months, together with drinking water or unfermented liquors (ſuch as tea, coffee, barley-water, liquorice-water, teas made of oranges, or other ſeeds and plants) will faſten the teeth when dropping out, from a conſumption of the gums by ſcorbutick ſalts, cure any cutaneous foulneſſes or eruptions, and even any ſpreading ulcer, if it is not ſcrofulous, when no medicine on the face of the earth will touch it. Hence the grand maxim in the cure of all ulcers is, by diet to bring them to the ſtate of a wound, and then they will cure of themſelves. And, as I have elſewhere obſerved, there is ſcarce a thin, conſumptive, hyſterick, or hypochondriack, and weakly conſtitution in England, which has not for its parent, a latent or manifeſt ſcorbutick cachexy, excepting that which ariſes from a ſcrofula. From the whole we may gather, how much a proper regimen of diet, and due exerciſe, with the other helps and remedies already mentioned in this treatiſe, is able to do in moſt Britiſh chronical diſtempers.

§ 4. Having had ſo often occaſion to ſpeak of weak and relaxed nerves, it will not be amiſs to ſuggeſt, ſome of the outward and moſt ſenſible

ſible ſigns and characters, whereby it may be manifeſt, whether one's ſelf, or any particular perſon he is concerned for, be of this make and conſtitution, before ſome chronical diſtemper, or other diſmal ſymptom has made it plain; in order to prevent theſe as far as poſſible. To which purpoſe we muſt obſerve, that the nerves are bundles of ſolid, ſpringy, and elaſtick threads or filaments (like twiſted catguts or hairs) whoſe one extremity is terminated at the common ſenſory in the brain, where the ſoul is ſuppoſed to reſide; the other is interwoven into every point of the ſcarf ſkin, the membranes, the coats of the veſſels, the muſcles, and the other ſenſible ſolids of the body, in order to convey the motions, actions, vibrations, or impulſes of outward objects to the ſoul. Theſe threads or filaments are highly elaſtick or ſpringy, as we may ſee from their hardened ſubſtances, ſuch as whalebone, ivory, horn, and cartileges, which are more eminently ſo, than any other bodies known. Some perſons have their fibres very quick, readily vibrating, highly ſpringy and elaſtick, ſo as to tremble and ſhake violently, by the leaſt impulſe. Others have more rigid, firm, and ſtretched fibres, which yield not but to ſtrong impreſſions, and move ſlowly, but move for a long time. Laſtly, there are thoſe who have weak, looſe, ſlender, and relaxed fibres, which though eaſily moved, and yielding to the weakeſt impulſe, yet communicate only imperfect, languid and faint impreſſions and vibrations to the ſoul, and have all their other animal functions of the ſame languiſhing nature

ture. And it is of theſe laſt, I have been all along ſpeaking. And we may readily diſcover them, by theſe outward characters and ſigns. 1. Thoſe who have naturally ſoft, thin, ſmall, and ſhort hair, are of a looſe, flabby, and relaxed ſtate of nerves. For the hair ſeems to be ſome of the fleſhy fibres, only lengthened outwards and hardened. At leaſt like the fibres, they conſiſt of a great many leſſer filaments contained in a common membrane, are ſolid, tranſparent and elaſtick: and as theſe hairs are in ſtrength and bulk, ſo generally the fibres of the body are. 2. Thoſe of the faireſt hair, are of the looſeſt fibres (other things being equal) becauſe the faireſt are more rare, porous, and fungous; and becauſe bodies of the lighter colours, conſiſt of ſmaller parts, than thoſe of the more flaming colours; as has been formerly obſerved. 3. Thoſe of large, or (as they are called) maſtiff muſcles, and of big bones, are generally of a firmer ſtate of nerves, than thoſe of little muſcles and bones: becauſe the muſcles and bones being ſimilar to their fibres, as is highly probable, and theſe being bigger, and conſequently ſtronger, ſo muſt thoſe be; and, on the contrary, 4. Soft, yielding, pappy fleſh, is a ſure ſymptom of looſe fibres; whereas hard, firm, and unyielding muſcles, are the conſtant ſign of firm fibres. 5. A white, fair, blanched, or aſhen-coloured complexion or ſkin, conſtantly indicates a weaker and more relaxed ſtate of fibres, than a ruddy, freſh, dark ſallow, or black hue; for reaſons already given. 6. A fat corpulent or phlegmatick

conſtitution, is always attended with looſe, flabby and relaxed fibres, by their being diſſolved and overſoaked in moiſture and humidity. And, on the contrary, thoſe of a dry, clean and firm make, have ſtrong, firm, and tenſe fibres. 7. Thoſe who are ſubject to evacuations of any kind, in any degree greater than what is natural; and thoſe who by any accident, have ſuffered long by any preternatural evacuation whatſoever, are, or become of looſe, relaxed fibres and nerves. Thus thoſe who frequently run into purging, or floods of pale water, flow at the mouth or noſe, or melt into profuſe ſweats; thoſe who any way have loſt much blood, have had a diarrhæa, have recovered of a fever, and thoſe of the ſex who have purified longer or more than is uſual; all of theſe are originally, or become accidentally, of weak and relaxed nerves and fibres. 8. Laſtly, thoſe who are of a cold conſtitution, are apt to run into coldneſſes on their extremities, or ready to catch cold, are alſo of weak and looſe fibres and nerves: becauſe theſe are ſigns of a ſlow and interrupted circulation and perſpiration; which manifeſts a weak ſpring in the fibres of the coats of the veſſels, the fibres of the muſcles, and a weakneſs of the ſpring of the ſcales of the ſcarf-ſkin.

§ 5 On this occaſion of rehearſing the ſigns of weak nerves, I cannot omit appriſing thoſe of the breeding part of the ſex, and thoſe who are concerned in them, of their readineſs of miſcarrying, unleſs duly tended and managed,

naged, eſpecially thoſe of them of tender and weak nerves, or of too delicate a conſtitution. The ſigns I have now laid down, will always make it evident, if any particular perſon is ſo or not. And if upon examination they be found to be ſuch, they will be apt, upon the ſlighteſt occaſion, to run into frequent miſcarriages; whereby a great part of their poſterity will be deſtroyed, and they themſelves expoſed to dropſies or conſumptions, or (which is worſe than either) perpetual lowneſs of ſpirits, vapours and other hyſterick diſorders. And by this misfortune alone, a conſiderable part of the better ſort here in England, periſh and are loſt. Nature has formed the generality of the ſex, of a ſoft, ſlender and delicate make. Want of due exerciſe, a full table, indiſcreet nurſes, over-fond mothers, and hereditary ſharpneſſes, make them much more ſo. And if by neglect or accident, they once begin to miſcarry, every firſt miſcarriage paves the way for a ſecond, and a third, and ſo on, 'till the poor, pretty creature, has neither blood nor ſpirits, appetite nor digeſtion left. For one miſcarriage, weakens the conſtitution, breaks and tears the nervous ſyſtem more, than two mature births. If ever this is to be ſecured or prevented effectually, it is to be done, at leaſt attempted, in the firſt inſtance, if poſſible, at leaſt as ſoon as may be, before a total relaxation and diſſolution of the nervous ſyſtem is brought on. The giddineſs romping and gadding about of the young creature herſelf, is often the cauſe of her miſcarriage. But oftner the forwardneſs and indiſcretion of

ſurgeons and midwives, by bleeding on every little threatening ſymptom, without conſidering the conſtitution. Bleeding may do well enough in ſanguine, robuſt, and plethorick conſtitutions: but it is death and certain ruin to thoſe of ſlender and weak nerves, and the ſureſt way to cauſe the miſcarriage it is deſigned to prevent, by relaxing the nervous fibres; which bleeding does as certainly, as it leſſens the quantity of the blood. The moſt effectual method I have ever found to prevent ſuch misfortunes, is, to order thoſe in ſuch circumſtances, to drink plentifully of Briſtol water, with a very little red wine, for their conſtant drink; to lay the plaiſter ad herniam, with oil of cinnamon, and London laudanum, in a due proportion, to their reins; to keep them to a low, light, eaſily digeſted diet, eſpecially of the farinaceous vegetables, and milk meats; to ſtrengthen their bowels with diaſcordium and toaſted rhubarb, if they become too ſlippery; to air them once or twice a day, in a coach or chair, and to keep them cheerful, and in good humour, as much as may be. This method will ſcarce ever fail, unleſs a latent ſcrofula, or ſome other hereditary ſharpneſſes in their juices, deſtroy the birth.

§ 6. The tender, ſickly, and thoſe of weak nerves, ought to have a regard in the conduct of their health, to the different ſeaſons of the year. I have elſewhere obſerved, that

that ſuch * conſtitutions begin to ſink, droop and languiſh, about Chriſtmas or Midwinter, go on from worſe to worſe, 'till the Spring is over, get up a little, as the ſun goes higher, and ſtronger, arrive at their meridian altitude of health and ſtrength about Midſummer, and hold it out ſo long as the ſun warms them, or the ſtrength they have acquired laſts. Thoſe who have very weak nerves, fail ſooner, even about the Autumnal Equinox: but they get up ſooner, becauſe their weaker nerves make leſs reſiſtance. The ſun new ferments, rarifies, and exalts their viſcid juices: ſo that the circulation is better performed, more full, free and univerſal. The perſpiration is alſo thereby much increaſed and promoted; and the load being drawn off, by the force of the ſun's heat; their appetite is ſharpened, and their digeſtion mended: to which the ſerene warm and clear air, and the greater liberty of exerciſe and buſineſs contributes. I ſhould adviſe ſuch therefore, religiouſly to follow the indications of nature, and to take theſe benefits it offers them, as a certain ſign of their being beſt and fitteſt for them. After Chriſtmas, and in the beginning of the Spring, milk, eggs, and ſpring herbs, as aſparagus, ſpinage and ſprouts come in firſt: of which I adviſe them to make the greateſt part of their diet then. As the Spring advances, lamb and veal, green peas and ſallading abound. After the vernal equinox, chicken and rabbit, young turkies, and early fruit come in ſeaſon. About

* Eſſay on the Gout.

bout Midſummer, mutton and partridge, colliflower and artichoak may be had. And Autumn brings in beef and veniſon, turnip and carrot. And it will be found, the concoctive powers of weak perſons, and thoſe of relaxed nerves, riſe and fortify gradually, as theſe ſtronger foods come in ſeaſon. By ſeaſon, I mean not, thoſe earlier days, that luxury in the buyers, and avarice in the ſellers about London, have forced the ſeveral kinds of vegetables, and animals in. But by the ſeaſon I mean, that time of the year, in which by nature, common culture, and the mere operation of the ſun and climate, they are in moſt plenty and perfection in this country. But the principal point I would urge is, that ſuch perſons, would regularly begin to correſpond with nature, in both leſſening the quantity, and lowering the quality of their food, as the ſeaſons indicate, and Providence provides the proper food in the greateſt plenty and perfection. By which they will preſerve the ballance of their health pretty near equal all the year round, have the lighteſt and leaſt food, when their concoctive powers are leaſt, and their nervous fibres weakeſt; and riſe in the food, in proportion as theſe riſe. Add to theſe, that as winter is beſt for home exerciſes, ſummer is fitteſt for thoſe without doors. And as the day lengthens, their labour and exerciſes abroad ought to be lengthened out. Neither Sydenham nor Fuller, have been able to tell the half of what obſtinate exerciſe will do, in low, cachectick, conſumptive caſes.

* —Labor

* ——Labor omnia vincit
Improbus.—— HORAT.

§ 7. The Germans have a proverb, that wiſe men ought to put on their Winter cloaths early in Autumn, and put them off late in the Spring. By which they would inſinuate, that people ought always to go well cloathed. Whatever may be in this, as to perſons that drink hard, and require a plentiful diſcharge by the ſkin, thoſe who are ſober, or who would render themſelves hardy, ought to accuſtom themſelves to as few cloaths, both in ſummer and winter, as is poſſible. Beſides the general rules, of having as few neceſſaries as may be; much and heavy cloaths, attract and draw too much by perſpiration; as Doctor Keill proves, in his med. ſtatic. Britann. tender and debilitate the habit, and weaken the ſtrength. The cuſtom of wearing flannel, is almoſt as bad as a diabetes. Nothing can enfeeble and drain, weak and tender perſons more. To make this clear, we muſt diſtinguiſh between perſpiration and ſweating; which differs as widely, as the daily natural emptying our bowels, and a looſeneſs or diarrhæa. And as no body in their ſenſes, much leſs the tender and weakly, would endeavour to encourage this laſt; no more ought they

* q. d. Unwearied exerciſe will overcome any chronical diſtemper.

they that other of ſweating. For as promoting ſlippery bowels, would always keep the fibres of the alimentary paſſages relaxed; ſo would perpetual ſweating, thoſe of the ſkin. And as the moiſture and damps that flannel perpetually keeps the ſkin in, and its growing ſo readily dirty, ſhews what a flux of perſpiration it promotes there; ſo the perpetual friction produced by it, gives the reaſon. If one lays in a ſuperfluous load of ſtrong liquors, it is happy for him nature diſcharges the ocean any how; for he had better ſweat, than burn in a fever. But for temperate, tender and ſickly perſons, the more firm and tight all the organs of their evacuations be (if they be not totally obſtructed) the better it will be for them, the more it will ſtrengthen their nerves, and harden their conſtitution. Nothing but ſuperfluity in food or ſtrong liquors, requires ſweating. and that is the reaſon, the Germans run ſo much upon it. So far, that * Tſchirnhaus, a very learned and ingenious gentleman otherwiſe, reſolves the cure of almoſt all diſtempers into ſweating, upon obſerving its ſucceſs in their bottle-fevers. They drink much thin ſharp wine, which paſſes every way; and when it comes through the ſkin, both the conflict and the danger is over. But for thoſe inhabitants of our iſlands, who are ſober becauſe they are tender, or would preſerve their health;

* In his Medicina Mentis & Corporis.

health; the lighter and fewer their cloaths are, both by night and by day, in ſummer and winter, the hardier they will grow. The more open the whole body is to the air, provided it be benign, the more fluid, and the more active, will the animal juices be; and, by conſequence, the more full and free will the perſpiration be. For right tempered air, is beneficial and medicinal to the animal juices: and a great heap of cloaths, only condenſes our own excrementitious atmoſphere about us, and ſtops the kindly influence of this beneficial element. As to catching cold, he that lives ſoberly, and avoids nitrous, that is, moiſt or froſty air, will either not readily catch cold, or if he does, will ſoon get rid of it. It is only air thus conditioned, that thickens and coagulates our juices, and gives painful and dangerous colds. It is inward heat only, which deſtroys us. No ſober perſons ever ſuffered by cold, unleſs it were extreme, or that they expoſe themſelves obſtinately to it, againſt ſenſe and reaſon.

§ 8. Another mean of health, to the tender, ſtudious and ſedentary, is much and often ſhaving the head and face, and waſhing, ſcraping and paring their feet and toes. The great benefit (beſides the pleaſure) to the head, eyes and ears, by often ſhaving the head and face, and waſhing them daily in cold water, with a few drops of the compound ſpirits of lavender, or hungary water, is beſt underſtood by thoſe that have felt it. The cutting off the hair and ſhaving the head, will, in the

firſt

firſt inſtance, ſcarce fail to cure a head-ach, a fluxion, or even a nervous weakneſs of the eyes. Any one evacuation, will not only leſſen the whole maſs; but if encouraged, will make that evacuation more ample and full. The more and oftner the hair is ſhaved, the faſter and thicker it will grow. So that thus ſhaving the head and face frequently, will be like an iſſue, or perpetual bliſter on theſe parts. Beſides the waſhing with warm water and ſoap, and ſcraping the ſkin with a razor, will cleanſe the mouths of the perſpiratory ducts, from that morphew and ſcurf that adheres to them, and will extremely encourage the perſpiration from theſe parts, and give a full and free vent, to the fumes on the head and brain. And waſhing well, and dipping in cold water afterwards, will ſhut the ſcales of the ſcarf ſkin, and ſecures againſt catching cold in the head, which is frequently a heavy grievance, to tender, ſtudious and ſedentary perſons. Therefore I ſhould adviſe ſuch, to ſhave their head and face every day, or every other day, or as often as they poſſibly can, and waſh them well in cold water afterwards. What ſhaving does to the upper parts, the ſame do waſhing and ſcraping the feet, and paring their nails to the lower. We know by the ticklihneſs of the ſoles, what a multitude of fine nervous fibres terminate in them. Walking, ſtanding and threading, render them callous, and the ſkin thick and hard; which much injures the perſpiration, and hinders the derivation of the blood and ſpirits into them. And it is a common obſervation, that nothing is a ſurer ſign of

ſtrong

ſtrong and rank health, than a kindly heat and a profuſe perſpiration on the feet. It ſhews a full and free circulation in the ſmall veſſels, at the greateſt diſtance from the ſource of heat and motion; than which nothing can more plainly indicate great and good health. On the contrary, weak and tender perſons, are always cold in the legs and feet, and firſt of all feel cold there in froſty weather. Let the tender therefore, and the weakly, duly once a week, waſh in warm water, rub ſcrape and pare their feet and nails. Which will likewiſe prevent corns, hardneſſes, and the unnatural tendency of the nails into the fleſh. Theſe are, it is true, but low and ſeemingly trifling obſervations towards health; but it is in this caſe, as it is in a more momentous one; he that deſpiſeth little things, ſhall periſh by little and little.

§ 9. Thoſe tender and valetudinary people, whoſe ſtudies and profeſſion oblige them to read and write much, ought, as far as they poſſibly can, to ſtand in an erect poſture, bending their head and breaſt, as little as may be, leaning only on a ſloping deſk, and continuing their exerciſe in that poſture, until they grow weary; then reſt and be at it again. Cuſtom and practice, obſtinately perſiſted in, will at length render the poſture eaſy to them. And it is inconceivable, how many and great advantages it will bring to the conſtitution. Sitting, bending and leaning low, compreſs ſome, if not many of the veſſels of the body; and ſo ſtop and retard the

circulation of the blood and juices through them; which makes a more ready flux thro' the other more patent and pervious ones. Whence that ſleepineſs and diſability to motion in the limbs, 'till the blood and ſpirits, by a proper poſture, get a free admittance into them. From this alſo, there enſues an unequable and ſubſultory circulation of the juices, and an unequable ſecretion in the glands; and conſequently, an unequal growth, ſtrength and vigour, of the organs and parts. Which is the cauſe of rickets in children; careleſs nurſes, neglecting to rock, dandle and toſs them ſufficiently, that the circulation of the juices and ſpirits may be equally promoted every where. And to avoid this inconveniency, ſeems to be the reaſon why the Romans and the Eaſtern Nations, lay along, at their great meals and feaſts, and when they were obliged to continue long in one poſture. Beſides, that in writing or reading, if one ſits, there is a conſtant preſſure on the cavity of the breaſt and ſtomach, which muſt neceſſarily weaken their functions; and theſe are commonly the organs which firſt decay in clerks and under ſecretaries. And hanging down the head, is the ready way to raiſe fumes and vapours to it: whereby ſuch will be expoſed to lowneſs of ſpirits, and perhaps conſumptions; all which are, in a great meaſure, avoided by an erect poſture: for thereby all the organs will be in their natural ſituation. Many of the muſcles will be in action, and ſo preſs on the blood veſſels, to facilitate the circulation. But chiefly, by this

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erect poſture, the juices will have the advantage of their own gravity, to deſcend with the greater velocity, to warm and cheriſh the lower parts, which are remoteſt from the ſource of motion; and the groſſer evacuations will be more readily promoted, and thereby preſerve the upper regions clear and ſerene: which will bring great advantages towards health and long life. But this practice will never become eaſy, unleſs to thoſe who begin young. Thoſe who dictate or conſult, ought to do them ſtanding or walking; which would relieve both body and mind.

§ 10. The unwieldy, fat and overgrown, beſides the rules already laid down, I adviſe, in particular, as much as is poſſible for them, to abſtain from drink of all kinds. No one rule or condition, ever was contrived, or can be, of ſo great uſe, to preſerve and lengthen the lives of ſuch, as an obſtinate and univerſal abſtinence from all kinds of liquors. If the doctrine be true (as it is highly probable) that the maſs of all the bodies of vegetables and animals, is only pipes and vaſcular tubes, formed all at once, in their firſt rudiments and ſeeds; then growth and increaſe of bulk, is only filling and plumping up, dilating, and unfolding theſe pipes with liquors. We know from Kircher's and Dr. Woodward's experiments, to what bulk vegetables will thrive, by mere element alone. Two pigs of the ſame litter, were fed upon an equal quantity of milk; only, to one of them, the milk was mixt with the ſame quantity of water. After

a month's feeding, they were both killed, and that which had the water, was found much larger and fatter than the other. Dropſies (at leaſt anaſarca's) have been cured by an obſtinate forbearance of drink. And lethargies proceed from the moiſture of the Brain. And theſe are the two diſtempers, unwieldy, fat and overgrown perſons are moſt ſubject to. Therefore, ſuch ought to avoid drink, as thoſe do, who have the * hydrophobia, or are bit by a mad dog. Which they may eaſily bring about, if they feed only on young animal, and moiſt and cool vegetable food. But whenever I ſpeak of vegetable food, I mean that which is dreſſed by fire.

§ 11. To the aged, and theſe who are paſſing off the ſtage of life, I have only two things to recommend, if they would make the laſt hour, as eaſy, indolent and free from pain as may be. The firſt is, that they would avoid the injuries of the weather, as much as ever they can. The blood of the aged is ever moſt certainly poor and viſcid. Their perſpiration little or none at all; and their concoctive powers weak. And conſequently they muſt be ſubjected to, and ſuffer by the weakeſt injuries of the weather. Therefore I adviſe ſuch, to keep home, provide warm rooms and beds, and good fires, when ever the ſky lowrs,

* i. e. Dread of Water; a diſeaſe ſo called, proceeding from the bite of a mad dog.

lowrs, winds blow, or the air is ſharp. Such are not to expect to raiſe, improve, or exalt their conſtitutions or health. Freedom from pain, to prevent the vital flames being extinguiſhed by accidents, and to have it burn as clear, and as long as nature, at their age, has deſigned it ſhould, is all they ought to aim at. Exerciſe is only to purge off ſuperfluities. If theſe therefore, be careful not to exceed, they will want none, nor would it much contribute to their eaſe. For in old men the bones petrify; the cartilages and tendons turn into bones; and the muſcles and nerves, into cartilages and tendons. And all the ſolids loſe their elaſticity, and turn, in a great meaſure, into that earth they are going to be diſſolved into. So that the ſolids wanting elaſticity, exerciſe can do but little to ſhake off the load. It will therefore be enough for ſuch, to air themſelves when the ſun lights them, and the ſummer breezes can refreſh them. Or, if they would lengthen out their days, to remove to a warmer climate, by which they may live as long as the crow. The ſecond thing I would adviſe ſuch, is, to leſſen their diet gradually, as they grow older, before nature has forced this diminution upon them. This is a powerful means to make their old age green and indolent, and to preſerve the remains of their ſenſes to the very laſt. By this alone, Cornaro lengthened out his days, and preſerved his ſenſes, in a great meaſure, intire to a hundred years. He gradually leſſened his diet ſo far, that, as his hiſtorian informs us, he came at laſt to live on the yoke

of an egg three days. I will not take upon me to adviſe others, in what meaſure, either of time or quantity of food, they ought to diminiſh. But this, I think, they ought to conſider, that ſince it is certain aged perſons become children, as to the weakneſs of their digeſtions, they ought to diminiſh, as children increaſe in their food, from weaker to weaker, and from leſs to leſs. For as their ſolids are unelaſtick, their concoctive powers weak, their perſpiration little, and the expences of living ſcarce any, their repairs (not to overlay the ſpark of life remaining) ought to leſſen proportionally. And it is to the neglect of this, in aged perſons that thoſe rheums, catarrhs, wind and cholicks, loſs of memory and ſenſes, thoſe aches and pains, and all that diſmal and black train of miſeries, that wait on long life, is moſtly owing. Which, by a diſcreet and timeous leſſening their diet, might, in a great meaſure, be prevented.

§ 12. There is no miſtake more fatal in the cure of chronical diſtempers, incident to the weak and tender, than the vain and unjuſt expectation they entertain of a ſudden and quick cure, or even of a ſenſible relief. This, with their inconſtancy, and impatience of being confined in their appetites, makes them either throw off all remedies and reſtraints in deſpair, and give themſelves up to an habitual indulgence in all thoſe things that brought on or exaſperated the diſtemper, or run about from Doctor to Doctor, 'till they end with a quack, or die under the hands of a mountebank.

bank, and are fooled out of their lives and money at once. It is ſurpriſing, that reaſonable men can imagine, that in any ſmall time, any poſſible methods or medicines ſhould cure, or even ſenſibly relieve a diſtemper, that perhaps was brought with them into the world, and interwoven with the principles of their being, or, at leaſt, may have been ten or twenty years a breeding, by exceſſes, or an indiſcreet regimen. I know no fitter ſimilitude of the caſe, than the annual income of an eſtate juſt ſufficient to keep one in decent neceſſaries, and due plenty and cleanneſs. If one that has ſuch an eſtate, run out every year, for ten or twenty years, and then ſet about to retrieve, before he become to ſtarving or a gaol, would we not count him mad, if he ſhould imagine, by retrenching, management or ſaving, even joining to thoſe day-labour, that a few months or years would recover all, and bring his eſtate to its firſt condition? No! he muſt labour, abſtain and manage for ſeveral years; and the time required, will be always in a proportion compounded of the rate of his former expences, and his preſent ſaving. That is, if his expences were but ſmall, and his ſavings great, the time will be the ſhorter, in reſpect of the time he continued his overſpending. If he gives over ſaving, he muſt at laſt moſt certainly ſtarve or go to gaol; and if he begins to ſave in due time, he will certainly retrieve all; but the whole conſiſts in labour and ſaving for a due time. Exceſſes and an undue regimen, is running out of one's health; which, without a proper remedy,

remedy, as labour and abſtinence, will neceſſarily bring a man to diſeaſes or death. And theſe muſt be continued a time proportioned to the greatneſs of the exceſſes, with regard to the labour and abſtinence. Moſt chronical diſtempers have for their parents, corrupted fluids, and broken ſolids, as has been ſhewn. A bad ſtate of the ſtomach and alimentary organs, either beget theſe or accompany them. Suppoſe, for example, the caſe be a ſcorbutick habit, ſhewing itſelf with blotches and a watery ichor, or bumps, with yellow or black ſpots on the ſkin, a thick, viſcid, rheumatick blood, an obſtructed liver, and a conſtant overflowing of the gall, oppreſſion of ſpirits, want of appetite and digeſtion, and thereby a waſting, laſſitude, inquietude, &c. which I have often met with in your bon vivants, and your free-livers, who have been born healthy, vigorous and lively; I know no way in nature to relieve and effectually cure this caſe, but by often repeated, gentle vomits and ſtomach purges, as the choler (which certainly degenerates into phlegm, before the cure be brought about; for phlegm is but choler more diluted, or the groſſer part of the ſerum only, as choler is that of the whole arterial fluid; and when choler is come to phlegm, the cure is half carried on, one part of the fluids being already purified, and the liver free and open; At the choler, I ſay,) and the phlegm riſes and loads the alimentary paſſages; bitters, aromaticks and ſteel varied and preſcribed, according to the ſtrength of the patient, and one kind as another has loſt its virtue; cha-

lybeat

ſybeat and mineral waters, conſtant labour and exerciſe; a cool, light, ſpare diet, and conſtant proper regimen, long and obſtinately perſiſted in. The patient will often complain, what! vomits and bitters, gallopping and faſting for ever! vomits only relieve for a few days, but do not cure: we grow as bad as ever again, and in ſome months perſeverence, find ourſelves juſt where we began. New doctors muſt be had, and they muſt either be caſhiered if they purſue the ſame intentions (which if they be honeſt men they muſt do) or elſe muſt write things that can neither do good nor harm, or thoſe which will actually hurt, for their fees (for there is no medium) 'till the miſerable perſon has run through the whole faculty, and at laſt got into the Charlatan tribe. It is certain, that when nature has begun to throw the groſs and viſcid parts of the juices on thoſe looſe and ſpungy glands, it will continue ſo to do, 'till it has dephlegmated the whole maſs; and every new vomit will make room for another; and there is no other remedy as long as there is any viſcid humour remaining, nor can the decline of the diſeaſe be diſcovered ſo certainly by any thing, as by the leſſening of the quantity excerned, and the lengthening of the intervals: as in a veſſel of oil and water incorporated, a ſure way to ſeparate the oil from the water is, to ſkim it off as it comes to the top. Now as long as there is any oil remaining, it will ſwim, if you but give it time to extricate itſelf from the embraces of the water, and then you may ſeparate the viſcid mixture intirely. No great purpoſe

poſe in life was ever brought about, but by time and patience, and by conſtantly purſuing the moſt natural and beſt approved means that lead towards that end. Nature works not by ſudden jumps and ſtarts, but goes on ſteadily 'fortement & doucement,' and it is nature that is the true phyſician: art only removes obſtacles, checks violences, and gently ſolicits nature the way ſhe tends. This requires time and patience. Tempus edax Rerum. It moſt certainly conſumes chronical diſeaſes, if not fuelled and fed; nothing elſe can.

§ 13. In fine, Providence has been kind and gracious to us beyond all expreſſion, in furniſhing us with a certain relief, if not a remedy, even to our moſt intenſe pains and extreme miſeries. When our patience can hold out no longer, and our pains are at laſt come to be inſupportable, we have always ready at hand a medicine, which is not only a preſent relief, but, I may ſay, a ſtanding and conſtant miracle. Thoſe only who have wanted it moſt, and have felt its friendly and kind help in their tortures, can beſt tell its wonderful effects, and the great goodneſs of Him who has beſtowed it on us. I mean opium, and its ſolution laudanum, which, when properly preſcribed, and prudently managed, is a moſt certain and ſudden relief in all exquiſite and intenſe pain. The manner of its operation may be gathered, from the obſervations I have made in the preceding treatiſe. Pain conſtricts, criſps up, ſhortens and contracts animal fibres. It acts like a wedge in tearing, rending

rending and dividing theſe ſmall filaments; it does to them in a living body, what the points of ſalts do to all animal ſubſtances, which are to be preſerved for food, viz. hardens ſtiffens and contracts them. The fibres of live animals being contractile, tonick and ſpringy, when a hard pointed body enters them (which is the caſe in all bodily pain) the parts, by their contractile nature, fly from, recede, and ſhun, as much as poſſibly they can, the wounding inſtrument. This appears in the large gaſh of a wound, made acroſs the fibres of a muſcle; in the continual bending towards the other ſide, when any part of one is pained; in the cramps and convulſions, nay, and ſometimes fevers, produced by intenſe acute pain. Pleaſure, on the contrary, relaxes the fibres by a gentle, ſoft, and bland, or (as the mathematicians ſpeak) a commenſurate and harmonious touch. It acts on the fibres as two uniſon and concordant muſical inſtruments act on one another, and by ſtroaking, ſoftning and ſmoothing, comes at laſt intirely to relax and unbend them. The parts of the fibres run after, follow and purſue, and at laſt break their union in ſome degree, to reach ſuch a demulcent touch. Some perſons have had the faculty to allay pain, by gently ſmoothing the afflicted part with their hand; which in ſome meaſure was true of the touching doctor. Soft oils, and emollient herbs, with gentle warmth, by relaxing the criſped fibres, will allay pain. Soft beds and cloaths, and tepid baths will relax and weaken the whole habit. Now ſince pain ſo certainly

tainly criſps up, conſtricts and contracts animal fibres, and ſince opiates infallibly, if duly doſed, relieve and eaſe pain, I can ſee no poſſible way it can effect that, but by relaxing and unbending theſe fibres as much, or near as much, as pain contracts and draws them up. And that this is the real fact, we may obſerve from many effects of opiates. 1. Nothing is ſo powerful, or ſo certain a diaphoretick as an opiate. Nothing cauſes ſuch plentiful ſweating, eſpecially if joined with volatiles, and promoted with plentiful drinking ſmall, warm liquors. This it can do only by relaxing the fibres of the ſkin and perſpiratory glands. 2. Nothing ſo much palls the appetite, and weakens the firſt digeſtions, as the frequent uſe of opiates; inſomuch, that moſt people, after a liberal doſe of them, ſeldom fail to reach, and never care for food for a conſiderable time after; 'till their effects are wrought off; which are the conſtant ſymptoms of a relaxed ſtomach and guts. 3. Nothing ſo much promotes the eruption of the ſmall-pox and meaſles, the expulſion of the ſtone and fœtus, the monthly, and the after-birth purifications of the ſex, as opiates; inſomuch, that in difficult births, they are now the only reſource of the midwife phyſicians; and, when joined with volatiles, will bring on the moſt powerful and vigorous throws, in the moſt weak and languiſhing conſtitutions. Theſe effects they can produce only by relaxing thoſe fibres pain has contracted and rendered unelaſtick in ſome meaſure. 4. Nothing quiets and ſtops cramps, convulſions and hyſterick

rick fits, ſo ſuddenly and certainly as opiates do. And every one knows theſe ariſe from violent contractions, and criſping up of the muſcular fibres. All theſe, and many more ſuch effects, opiates produce, by unbending, looſening, and relaxing thoſe fibres violent and acute pain had conſtricted and contracted, and by giving a reſpite and reprieve from its tortures, and thereby allowing nature (the only true phyſician) to go undiſturbed about its own work. The way it ſtops purging, and cures a diarrhæa, I take to be by carrying off the ſharp and watery humours in the bowels by perſpiration, which opium exceedingly promotes; by quieting thoſe ſpaſms and convulſions, and allaying thoſe ſtimulations excited by purging; and ſettling and calming the violence of the periſtaltick motion of the guts, which hurries off the contents. I will not take upon me here, to determine the proper caſes for opiates, or their doſes. That is the buſineſs of the phyſician. But in general I may ſay, wherever pain is acute, intolerable, and paſt enduring, where it may endanger convulſions, a fever or inflammation; after premiſing the proper univerſal evacuations (ſuch as bleeding, bliſtering, cupping, purging, or gliſtering, as the caſe requires, or will bear) opiates then will moſt certainly relieve, and may be ſafely adminiſtered. If the caſe is attended with vomiting, ſolid opium will do beſt; becauſe it will be in a ſmaller volume, and will not be ſo readily rejected. If ſpeedy relief be required where there is no vomiting, then laudanum will diſperſe ſooneſt

through the habit, becauſe liquid, and joined with a ſpirituous vehicle will ſooneſt effect the deſign, raiſe the oppreſſed ſpirits more, and penetrate deeper and quicker. In common caſes, a vinous vehicle will be ſufficient, becauſe opium is beſt diſſolved in wine, to make laudanum. There are four caſes, in which it is abſolutely and eminently neceſſary; the cholick, the ſtone, the hard labours, afterbirth, and monthly ſluggiſh purifications of the ſex, eſpecially if attended with violent pain, as is common in ſuch caſes; and in the gout and rheumatiſm. In the firſt, it ought always to be given with ſome ſtomach purge, as elixir ſalutis, or tincture of hiera picra, with ſyrup of buckthorn, and in thoſe of more tender bowels, with tincture of rhubarb; eſpecially if the cholick is in the lower bowels, and attended with no vomiting; in which caſe an artificial vomit is to be premiſed, if circumſtances forbid it not. In the ſtone it ought to be given with oil of ſweet almonds, or in ſome ſoft emulſion, to lubricate the parts. In the two laſt caſes, it ought always to be given with proper volatiles, antihyſtericks and attenuants. In violent and acute pain, the firſt doſe ought to be large, at leaſt from thirty to forty-five drops of liquid laudanum, or its equivalent in opium, from two grains and a half, to three and a half; and afterwards to be increaſed by fifteen drops of liquid, or half a grain of ſolid laudanum every half hour, until the pain begin to remit; and then an entire ſtop is to be put to its adminiſtration. And thus the end will be obtained without any fear

of

of over dosing. And the truth is, there is less hazard of that, than persons are aware. For those who die of an over-dose of laudanum in the opinion of the world, would have lived few days without it. For there are those that by custom, have brought themselves to two drachms of solid, that is, near six ounces of liquid laudanum a day. And I know a gentleman who took near three ounces at once, instead of elixir salutis, and had never taken any in his life before; who (though it extremely weakened his stomach for some time, and that he dosed almost a month under it) yet did well, and, for ought I know, is alive still, though it be many years since. If the preceding dose be rejected by vomiting, about a third part may be supposed to stay; and then the subsequent doses may be proportioned accordingly. The difference of constitutions will make no great alteration here, since very weak persons seldom suffer very violent pain, which is the only case I am here considering.

§ 14. To draw towards a conclusion. The grand secret, and sole means of long life, is, to keep the blood and juices in a due state of thinness and fluidity, whereby they may be able to make those rounds and circulations through the animal fibres, wherein life and health consist, with the fewest rubs, and least resistance, that may be. In spite of all we can do, time and age will fix and stiffen our solids. Our original frame and make renders this unavoidable and necessary. As in

the greater world, the * quantity of the fluids is daily leſſening and decreaſing; ſo in our leſſer world after a limited time, the appetite and concoctions failing, the fluids are leſſened and ſpent on the continual repairs of the ſolids, and thereby loſe their nature, and become firm and hard. For by inſinuating themſelves into all the pores of the ſolids, and the interſtices of their parts, and ſtraitening and damming up the ſmall veſſels, which carry in nouriſhment to the internal ſubſtance of the ſolids, and ſo depriving them of their moiſture and lubricating juices, theſe ſolids come at laſt to harden, ſtiffen, and fix, and thereby loſe their elaſticity and ſpringineſs. Here the proceſs is mechanical and neceſſary. Age and time, by weakening the concoctions, impairing the natural heat, which conſiſts in a briſk and extended circulation of the juices, by the turning thoſe juices into ſolid ſubſtances, and thereby fixing and hardening theſe ſolids, and depriving them of their due elaſticity, the fluids circulate with leſs velocity and force, and ſeldom reach the extremities and ſmalleſt veſſels, but paſs through the more potent and larger veſſels, by their biggeſt laterial branches. And if with all theſe unavoidable and irremediable circumſtances, both the nutritious and ſerous part of the blood, and the globular, become viſcid, thick and glewy, the circulation muſt ſtop

* See Sir Iſaac Newton's Princip.

ſtop at laſt, and come to an end. Now it is certainly in a great meaſure in our power to maintain the juices in a due ſtate of fluidity and thinneſs, and to render them ſuch, if they are not corrupted to an extreme degree, ſo that the remaining part of life be not too ſhort for ſuch a tedious work. We certainly may dilute and thin any fluid, that has an inlet and outlet. And the more fluid a circulating liquor is, that is the ſmaller and finer its parts are, the leſs force it will require to ſet it a going, and to continue its motion. And in animal bodies, the thinner and more fluid the juices are, they will not only circulate by the leſs force, and with leſs reſiſtance (i. e. pain) but alſo they will preſerve by their circulation, the ſolids the longer from ſtiffening and hardening. There is not a more miſchievous, nor greater miſtake, than the common one, that thin blood is poor blood, which the vulgar and herd of mankind are as terribly affrighted for, as outward poverty and want. For, on the contrary, the thinneſt and moſt fluid blood is the richeſt, that is, the beſt blood (if rich and good mean the ſame thing). For in hydropical, anaſarcous, cachectick, and ſcorbutick perſons, both the ſerous and globular part of the blood is thick, glewy and acrimonious, ſo that it can neither get through the ſmall veſſels, nor can it be long contained in them, but corrodes and frets them, and ſo falls (at leaſt the thinneſt part of it) into the cavities, and begets a dropſy; or ſtops in and obſtructs theſe ſmall veſſels, and ſo becomes an anaſarca or ſcurvy. In all which caſes,

the ſerous part is overloaded with urinous ſalts, and becomes a perfect lixivium; ſo that by its groſſneſs it cannot run into globules, to facilitate the circulation through the capillaries (for theſe ſmall elaſtick globules, by turning oval or oblong, wonderfully facilitate the circulation of the juices through the ſmall paſſages) and the red or globular part becomes a mere cake of glew; and thus the quantity of ſerum is increaſed, and the quantity of the globular part gradually leſſened. And in this ſenſe (of a greater proportion of ſerum) this ſtate of the blood may be called thin; but it can in no ſenſe be called good blood. The thinneſt and moſt fluid blood, is ever to be looked upon as the beſt blood, as conſiſting of fineſt and ſmalleſt parts, which moſt readily runs into red globules, and moſt eaſily circulates through the capillary veſſels, which is the moſt ſolid foundation of good health and long life. Now as nothing but indulging in ſtrong high foods, which the concoctive powers cannot break and divide into parts ſmall enough to run into red globules, or circulate through the ſmall veſſels, but overſtock them with urinous ſalts, which run into cluſters, and firſt obſtruct, and afterwards break theſe ſmall veſſels, and in wallowing in ſtrong liquors, which parboil and eat out the tender and delicate fibres of the ſolids; I ſay, as nothing but ſuch an indulgence, and ſuch exceſſes long continued, and obſtinately perſiſted in, can beget ſuch a ſtate of the fluids and ſolids, and ſo bring on a cachexy, which may end in a dropſy, or ſome other fatal chronical diſtem-

diſtemper, according to the habits and particular make and conſtitution of the party (for no perſon that lived low and meagre, and drank only ſmall and thin liquors, ever became hydropical, if his ſolids were originally firm, and his fluids not tainted with ſome hereditary ſharpneſs) ſo I know nothing under the ſun, that can ſolidly and fully effectutate the contrary ſtate of the blood and juices, to render them thin, ſweet, and in a conſtant flowing condition, but taking the contrary meaſures, and keeping to a ſtrict regimen of a thin, fluid ſpare and lean diet. We have no poſſible way to attenuate, clean and dilute a veſſel full of groſs, glewy, and foul mixtures, that has only a ſmall inlet and outlet, but by pouring into it a thin, clear, inſipid fluid, and by ſhaking it often and much. It is much the ſame with an animal body. No voluptuous nor lazy perſon, unleſs he has had an original conſtitution of braſs, was ever a long liver. And even then, as his life has been more miſery and pain, than ever a ſober gally ſlave endured, his end, and the latter part of his days has been rack and torture, horror and deſpair. And though he has not had the hope nor conſolation of a martyr, yet his ſufferings have been far more exquiſite and extreme. All thoſe who have lived long, and without much pain, have lived abſtemiouſly, poor and meagre. Cornaro prolonged his life, and preſerved his ſenſes, by almoſt ſtarving in his latter days; and ſome others have done the like. They have indeed thereby, in ſome meaſure, weakened their natural ſtrength,

and

and qualified the fire and flux of their ſpirits: but they have preſerved their ſenſes, weakened their pains, prolonged their days, and procured themſelves a gentle and quiet paſſage into another ſtate. Gentle domeſtick purges frequently repeated, due exerciſe, and the uſe of the other means preſcribed in the foregoing treatiſe, will mightily contribute toward this end. But the ground-work muſt be laid, carried on, and finiſhed in abſtemiouſneſs; and though not in abſolute faſting (for that is no ways required, and would be prejudicial) yet in a thin, poor, low, light and meagre diet. All the reſt will be inſufficient without this. And this alone, without theſe, will ſuffice to carry on life, as long as by its natural frame it was made to laſt, and will make the paſſage eaſy and calm, as a taper goes out for want of fuel.

MISCELLANEOUS RULES of HEALTH and LONG LIFE.

1. CHRONICAL diſeaſes laſt long, wear out the conſtitution leiſurely, and are accompanied with a ſlow pulſe; whereas acute ones ſoon terminate either in death or recovery, and are joined with a quick pulſe.

2. The ſcurvy is the root of moſt chronical diſeaſes of the Britiſh nation; and is a neceſſary conſequence of their way of living almoſt wholly on animal food, and drinking ſo much ſtrong liquors.

3. Soft,

3. Soft, thin, ſmall, ſhort, fair hair, ſlender muſcles and bones; ſoft fleſh; a white, fair, blanched or aſhen-coloured complexion; a fair, corpulent, phlegmatick, cold conſtitution; chilline ſs, eſpecially in the feet; a readineſs to catch colds; and being ſubject to immoderate evacuations of any kind, are certain ſigns of looſe, flabby, or relaxed nerves.

4. Women of weak nerves are very ſubject to miſcarriages. Their danger is increaſed by high living, and indiſcreet bleeding. The only remedy for them, is drinking Briſtol water and red wine, with a low and light diet, going abroad to get air, and uſing aſtringent plaiſters, and other proper medicines to corroborate their bowels.

5. The weak and ſickly (as their concoctive powers fail in winter, and recover in ſummer) ſhould carefully proportion the quantity and quality of their food, to the ſtrength of them in the ſeveral ſeaſons.

6. The fewer cloaths one uſes, the hardier he will be. Flannel and great loads of cloaths by day and night, relax the fibres, and promote only ſweating, inſtead of the natural and beneficial perſpiration.

7. The weak, ſedentary and ſtudious, ſhould frequently ſhave their head and face, waſh and ſcrape their feet, and pare the nails of their toes.

8. People

8. People that read and write much, ought to do them ſtanding, or in as erect a poſture as they can. And thoſe who can go about any part of their ſtudies walking, ſhould do it.

9. The fat, unwieldy and overgrown, ought to avoid all manner of drink, ſtrong and ſmall, and even water itſelf, as much as poſſible. And if their food be vegetables and young animals, they will have little occaſion for any liquor.

10. The aged ſhould (1) carefully guard againſt all the injuries of the weather; and (2) leſſen the quantity, and lower the quality of their food gradually, as they grow older; even before a manifeſt decay of appetite force them to it.

11. As chronical diſeaſes are not brought on all at once; ſo they cannot be quickly removed. A gradual corruption, muſt be gradually remedied, it is contrary to the nature of chronical diſeaſes to be quickly cured.

12. In all acute and vehement pain, opium is the ſovereign relief, particularly in the cholick, ſtone, gout, rheumatiſm, and hard labour of women. It operates by relaxing and unbending the fibres, overſtretched and criſped up by pain.

13. The great ſecret of health and long life, lies in keeping the blood (and conſequently the other juices of the body) in a due degree of fluidity.

CON-

CONCLUSION.

TO conclude, without taking the benefit of revelation, which, in a ſenſe relating even to our mortal bodies, has brought life and immortality to light; if but the precepts of the Pagan philoſophers were obſerved,

——Servare Modum, Finemque tueri, Naturamque ſequi.——

If men would but obſerve the golden mean in all their paſſions, appetites and deſires; if in all their thoughts, words and actions, they would but mind, I will not ſay the end of their being and exiſtence here, but the end to which their thoughts, words and actions naturally tended in their laſt reſort; and, laſtly, if in the gratifications of their appetites, paſſions and deſires, they followed the uncorrupted dictates of nature, and neither ſpurred her on beyond her craving, nor too violently reſtrained her in her innocent bias; they would enjoy a greater meaſure of health than they do; have their ſenſations more delicate, and their pleaſures more exquiſite; live with leſs pain, and die with leſs horror. For had it not been for the lewdneſs, luxury, and intemperate gratifications of the paſſions and appetites, which firſt ruined and ſpoiled the conſtitution of the fathers, whereby they could communicate only a diſeaſed, crazy and untuneable carcaſs to their ſons, ſo that with the world's decay, vicious ſouls and putrified bodies, have in this our age, arrived to their higheſt and moſt

moſt exalted degrees; I ſay, had it not been for theſe evils, there never had happened ſo much ſickneſs, pain and miſery, ſo unhappy lives, and ſuch wretched ends, as we now behold among men. But even in this our lapſed eſtate and condition, had the dictates of nature and reaſon, nor to ſay religion, been followed; we might have paſſed our days in indolence (at leaſt from chronical diſtempers) if not innocent pleaſures, arrived at a good old age, with our ſenſes free, and our rational faculties clear, and at laſt departed in peace, as a lamp goes out for want of oil. And let the gentlemen of wit and fire, of banter and ſneer, hug themſelves ever ſo much in their boaſted tranquility and ſecurity, gratify their paſſions, appetites and humours to the full, and deſpiſe futurity and whining; I dare promiſe when the farce is ended, and the laſt minutes are drawing on, they would prefer a life thus led, and an end ſo calm, to all the pleaſures of lewdneſs and ſenſuality, and the bounces of a falſe and ignorant ſecurity.

FINIS.

SUMMARY ACCOUNT,

OR,

LIFE of the AUTHOR.

WROTE BY HIMSELF.

LIFE OF THE AUTHOR.

WROTE by HIMSELF.

§ 1. I WAS born of healthy parents, in the prime of their days, but diſpoſed to corpulence; by the whole race of one ſide of my family. I paſſed my youth in cloſe ſtudy, and almoſt conſtant application to the abſtracted ſciences, (wherein my chief pleaſure conſiſted) and conſequently in great temperance and a ſedentary life; yet not ſo much but that I ſometimes kept holiday, diverted myſelf with the works of imagination, and rouſed nature by agreeable company and good cheer; but, upon the ſlighteſt exceſſes, I always found ſlippery bowels, or a ſpitting to be the criſe; whence afterwards, on reflection, I concluded,

that my glands were naturally lax, and my ſolids feeble; in which opinion I was confirmed, by an early ſhaking of my hands, and a diſpoſition to be eaſily ruffled on a ſurprize. Upon my coming to London, I all of a ſudden changed my whole manner of living; I found the bottle-companions, the younger gentry, and free-livers, to be the moſt eaſy of acceſs, and moſt quickly ſuſceptible of friendſhip and acquaintance, nothing being neceſſary for that purpoſe, but to be able to eat luſtily, and ſwallow down much liquor; and being naturally of a large ſize, a cheerful temper, and tolerable lively imagination, and having, in my country retirement laid in ſtore of ideas and facts, by theſe qualifications I ſoon became careſſed by them, and grew daily in bulk, and in friendſhip with theſe gay gentlemen and their acquaintances: I was tempted to continue this courſe, no doubt from a liking, as well as to force a trade, which method I had obſerved to ſucceed with ſome others; and thus conſtantly dining and ſupping in taverns, and in the houſes of my acquaintances of taſte and delicacy, my health was in a few years brought into great diſtreſs, by ſo ſudden and violent a change. I grew exceſſively fat, ſhorth-breathed, lethargick and liſtleſs.

§ 2. The firſt ſenſible ſhock I had, was an autumnal intermittent fever; this I conquered in a few weeks with the bark, which at that time, I found exceeding freſh, thin, cinnamon-coloured, and curled: this ſort (as I know from long experience) greatly contributing to the

the ſpeed and certainty of the cure of ſuch diſtempers, being more eaſily digeſted, and entering more readily into the maſs of blood, while the ſtomach is ſpoilt by a diſeaſe, and the juices under a præternatural ferment. For one year I went on tolerably well, tho' as it were jumbled and turbid, and neither ſo clear in my faculties, nor ſo gay in my temper: But next autumn I was ſuddenly ſeized with a vertiginous paroxyſm, ſo extremely frightful and terrible, as to approach near to a fit of an apoplexy, and I was forced in it to lay hold on the poſts of my bed, for fear of tumbling out, as I apprehended. After immediate bleeding and vomiting (whereby its violence was abated) I thought it might be owing to an anomalous fit of my relapſing inmittant, and thereupon took about four ounces of this fine bark in 48 hours, but without any ſenſible benefit or injury. I found after this, ſome ſmall returns of my vertigo (in bed eſpecially) on lying on a particular ſide, or preſſing upon a particular part of my head; but by degrees it turned to a violent head-ach, giddineſs, lowneſs, anxiety and terror, ſo that I went about like a malefactor condemned, or one who expected every moment to be cruſhed by a ponderous inſtrument of death, hanging over his head. At this time I left off ſuppers of all kinds, and have never reſumed them ſince; then, even at dinner, eating but a ſmall quantity of animal food, and drinking very little fermented liquor, well knowing, that diſeaſes muſt always be cured by their contraries. On this occaſion, all my bouncing, proteſting, com-

panions forſook me, and dropt off like autumnal leaves: they could not bear, it ſeems, to ſee their companion in ſuch miſery and diſtreſs, but retired to comfort themſelves with a cheer-upping cup, leaving me to paſs the melancholy moments with my own apprehenſions and remorſe. Even thoſe who had ſhared the beſt part of my profuſions, who, in their neceſſities, had been aſſiſted by my falſe generoſity, and in their diſorders relieved by my care, did now entirely relinquiſh and abandon me; ſo that I was forced to retire into the country quite alone, being reduced to the ſtate of Cardinal Wolſey, when he ſaid, that if he had ſerved his Maker as faithfully and warmly as he had his Prince, he would not have forſaken him in that extremity; and ſo will every one find, when union and friendſhip is not founded on ſolid virtue, and in conformity to the divine order, but in ſenſual pleaſures and mere jollity. This ſilly circumſtance I mention, becauſe I thought then, it had ſome ſhare in my ſucceeding melancholy.

§ 3. I retired, I ſay, to the country, into a fine air, and lived very low: I had a ſeton made in my neck, which I carried about for many months; I took frequent vomits, and gentle purges, tryed volatiles, fœtids, bitters, chalybeats, and mineral waters, and had the advice of all my phyſical friends, but with little or no ſenſible benefit; my headach, giddineſs, watchings, lowneſs, and melancholy rather increaſing on me. I had by chance heard of the great benefit, which one of my particular

particular acquaintances had reaped from ſome active mercurial medicines (though preſcribed by a very inſufficient practitioner) in a violent ſtupifying head-ach, which I had reaſon to believe came by the ſame intemperance; theſe I reſolved to try. I firſt took twenty grains of what is called the princes powder, which gave me twelve vomits, and near twice the number of ſtools; and I had certainly periſhed under the operation, but for an over-doſe of Laudanum after it. In two or three days more, I took twelve grains of turbith-mineral, which had not quite ſo violent an effect; after that I took ten grains of Calomel, twice a day, for about ten days together; this put me into a petit flux de bouche: after which in three weeks time I got abroad lightſomer indeed, and leſs confuſed, though ſtill very bad, and ſcarce any thing better, but not worſe; but two months after that, I found an extream ſickneſs in my ſtomach, which obliged me to take frequent vomits, theſe now pumping up oceans of choler, which they had never done in any degree before: whence I concluded, that the ponderous remedies I had taken, had opened my obſtructed liver, gall bladder, and porus biliarius, and broken the coheſion of the viſcid juices.

§. 4. While I was thus (as I have ſaid) forſaken by my holiday friends, and my body was, as it were, melting away like a ſnow-ball in ſummer, being dejected, melancholy, and much confined at home, by my courſe of mineral medicines, and country retirement, I had

had a long ſeaſon for undiſturbed meditation and reflection (my faculties being then as clear and quick as ever) which I was the more readily led into, that I concluded myſelf infallibly entering into an unknown ſtate of things. Having had a liberal and regular education, with the inſtruction and example of pious parents (who, at firſt, had deſigned me for the church) I had preſerved a firm perſwaſion of the great and fundamental principles of all virtue and morality: viz. the exiſtence of a ſupreme and infinitely perfect Being, the freedom of the will, the immortality of the ſpirits of all intelligent Beings, and the certainty of future rewards or puniſhments. Theſe Doctrines I had examined carefully, and had been confirmed in, from abſtracted reaſonings, as well as from the beſt natural philoſophy, and ſome clearer knowledge of the material ſyſtem of the world in general, and the wiſdom, fitneſs and beautiful contrivance of particular things animated and inanimated; ſo that the truth and neceſſity of theſe principles was ſo riveted in me (which may be ſeen by the firſt edition of my philoſophical principles, publiſhed ſome years before that happened) as never after to be ſhaken in all my wanderings and follies: and I had then the conſolation to reflect, that in my looſeſt days, I had never pimped to the vices or infidelity of any, but was always a determined adverſary to both. But I found that theſe alone were not ſufficient to quiet my mind at that juncture, eſpecially when I began to reflect and conſider ſeriouſly, whether I might not (through careleſſneſs and

ſelf-

ſelf-ſufficiency, voluptuouſneſs and love of ſenſuality, which might have impaired my ſpiritual nature) have neglected to examine with ſufficient care: if there might not be more required of thoſe, who had proper opportunities and leiſure; if there might not, I ſay, be higher, more noble, and more enlightening principles revealed to mankind ſomewhere; and if there were not more encouraging and enlivening motives propoſed, to form a more extenſive and heroic virtue upon, than thoſe ariſing from natural religion only (for then I had gone little farther than to have taken Chriſtianity and Revelation on truſt) and laſtly, if there were not likewiſe ſome clearer accounts diſcoverable of that ſtate I was then (I thought) apparently going into, than could be obtained from the mere light of nature and philoſophy. Such were my reflections in this my melancholy retirement, and this led me to call to mind, which, of all my numerous and various acquaintances, I could wiſh to reſemble moſt, now in theſe my (to me ſeemingly) approaching laſt moments; and who among all thoſe of my particular acquaintances, was he, who being of a ſound natural, and duly cultivated parts, had moſt ſtrictly and conſtantly lived up to their convictions, under the commonly received principles, and plain conſequences of Chriſtianity. In a word, who it was I could remember to have had received, and lived up to the plain truths and precepts contained in the Goſpels, or more particularly in our Saviour's Sermon on the Mount. At that time among many whom my memory ſug-

ſuggeſted to me, I fixed on one, a worthy and learned clergyman of the Church of England, ſufficiently known and diſtinguiſhed in the philoſophical and theological world (whom I dare not name, becauſe he is ſtill living, tho' now extremely old); and as in ſtudying mathematicks, and in running over (as I was able) Sir Iſaac Newton's philoſophical works, I had always picked out, and marked down the authors and writings moſtly uſed and recommended by thoſe others, and by him, becauſe I thought they could beſt judge of ſuch; ſo in this caſe the more quickly to ſettle my mind, and quiet my conſcience, I reſolved to purchaſe ſtudy, and examine carefully ſuch ſpiritual and dogmatic authors, as I knew this venerable man did moſt approve and delight in. In this manner I collected a ſet of religious books and writers, of moſt of the firſt ages ſince Chriſtianity, recommended by him, with a few others of the moſt ſpiritual of the moderns, which have been my ſtudy, delight and entertainment in my retirements ever ſince; and on theſe I have formed my ideas, principles and ſentiments: ſo as, under all the varieties of opinions, ſects, diſputes and controverſies, that of late, and ſince the earlieſt ages, have been canvaſſed and bandyed in the world, I have ſcarce ever ſince been the leaſt ſhaken, or tempted to change my ſentiments or opinions, or ſo much as to heſitate in any material point. This tedious, perhaps impertinent circumſtance I mention, becauſe the fright, anxiety, dread and terror, which, in minds of ſuch a turn as mine (eſpecially under a broken and cacheſtick

cachectick conſtitution, and in ſo attrocious a nervous caſe) ariſes, or, at leaſt, is exaſperated from ſuch reflections, being once ſettled and quieted, that after becomes an excellent cordial, and a conſtant ſource of peace, tranquility and cheerfulneſs, and ſo greatly contributes to forward the cure of ſuch nervous diſeaſes: for I never found any ſenſible tranquility or amendment, 'till I came to this firm and ſettled reſolution in the main, viz. "To neglect nothing to ſecure my eternal Peace, more than if I had been certified I ſhould die within the day: nor to mind any thing that my ſecular obligations and duties demanded of me leſs, than if I had been enſured to live fifty years more." This, tho' with infinite weakneſs, and imperfection, has been much my ſettled intention in the main ſince.

§ 5. The ſpring following I was adviſed and preſſed by all my friends, and the phyſicians I conſulted, to try the Bath waters. I went there accordingly, for the firſt time, as a patient; and, for many weeks, was much relieved both in my ſtomach and ſpirits by them: and tho' in the opinion of the world, I lived very temperately, yet by increaſing the quantity of my animal food, and ſtrong liquors (my appetite being now ſtronger and more craving, and my ſpirits briſker, from the drinking of the waters) in the ſpace of four or five months, I was heated ſo, as to apprehend a hectic. I then changed the Bath for the Briſtol waters, retrenched my diet, and increaſed my daily riding and exerciſe, and continued ſometimes gentle

gentle vomits: by which I paſſed that year better than the former, though far from well; but, on the return of the next ſpring, ſome ſymptoms were exaſperated, inſomuch that their ſeverity, the continuance of my miſeries, and the conſtant complaints, common to hypiſh people, made life a burden to myſelf, and a pain to my friends. I accidentally met with a clergyman, who told me of a wonderful cure, which Dr. Taylor of Croydon had wrought on himſelf in an epileptick caſe, by a total milk diet. This hint accidentally dropt, wrought ſo on me, that I began to recollect a great many things, that before had eſcaped me without much reflection. I had read in Dr. Sydenham, that in violent and obſtinate hyſterick fits and cholicks, he had, with great ſucceſs, preſcribed a total milk diet, as the laſt and ſureſt remedy. Dr. Pitcairn, my maſter and friend, in his dictates had recommended it as the only infallible cure in an inveterate ſcurvy, cacochimy and totally vitiated juices: and I myſelf knew it to be the only remedy in the gout, a confirmed hectic and conſumption, and had ſeen miracles wrought by it in ſuch caſes; beſides, I knew nervous diſtempers of all kinds, differed only in degrees. All theſe conſiderations determined me, next day, in the middle of winter, to ride to Croydon to adviſe with Dr. Taylor perſonally. I found him at home, at his full quart of cow's milk (which was all his dinner.) He told me he had had the advice of all the moſt eminent phyſicians of his time about London, and had taken all their medicines, and all he had ever

ever read or heard of, for his epilepsy, but with so little success, that he used frequently to be seized with it on the road, while he was riding in the country about the business of his profession, so that dropping from his horse, he remained senseless, till by the next waggoner or passenger he was carried to the nearest house; and that both his life and faculties had been in the utmost danger by it; but that, on reading Sydenham, he had first dropt all fermented liquors, whereby his fits became less violent and frequent, and then, by degrees, he had given over all animal food, living entirely on cows milk, with which, at first, he used only to take a few drops of Sal volatile or Harts-horn, or a spoonful of compound pæony water, to prevent its crudling; that in a year or two his fits had entirely left him: and that now, for seventeen years, he had enjoyed as good health as human nature was capable of, except that once in a damp air and foggy weather, riding through Essex, he had been seized with an ague, which he got over, by chewing the bark. He told me, he could then play six hours at cricket on Banstead-Down, without fatigue or lowness, and was more active and clear in his faculties and senses than ever he had been in his life before. He informed me also of a great many persons he had cured of inveterate distempers by this diet, and particularly that he had removed the barrenness of some great families by it, who before had wanted heirs.

§ 6. Having thus fully satisfied all my

doubts and difficulties, I returned to London, fully determined to enter upon this courſe, for which I was ſufficiently before prepared, by the low animal diet, and ſmall quantity of fermented liquors, I had of a long time been accuſtomed to. I drank cows milk from the park every morning, and engaged a milk woman at a higher price than ordinary, to bring me every day as much pure and unmixed, as might be ſufficient for dinner and breakfaſt; (for, as I mentioned before, I had given over all kinds of ſuppers, and never after reſumed them, having always found myſelf worſe on the ſlighteſt attempts that way at night, tho' even in milk and vegetables.) I uſed ſeeds, bread, mealy roots, and fruit with my milk indifferently, taking them all to be pretty near of the ſame nature and claſs of foods: milk being vegetables immediately cooked by animal heat and organs, and directly (without going the circulation) drawn from their chyle, or from an emulſion of vegetables in the ſtomach. I thought ſcarce any grown perſon was ſo delicately framed by nature, or that I was not reduced to ſuch extreme weakneſs, that ſuch ſmall errors, could do great hurt; and therefore I continued all theſe, for a little variety, leſt I ſhould be cloyed by only one kind of food; and ever ſince have uſed and preſcribed milk and vegetables indifferently, in extreme low and dangerous caſes only, when ſufficiently prepared by culinary heat and organs, and am perſuaded they differ little in their nature. In five or ſix months I was conſiderably recovered; only upon the glands being

being loaded, and the peccant matter of the old habit being thrown upon the chyliferous duct, and the conſtantly enſuing oppreſſion and reſtleſsneſs thereupon; I was forced to cleanſe them often by by a gentle vomit, or an aloetick pill, which as conſtantly reſtored me to my uſual clear and free ſpirits, and to a good appetite for my then food.

§ 7. By this time I had been extremely reduced in my fleſh, and was become lank, fleet and nimble; but ſtill, upon any error even in this low diet, I found more or leſs oppreſſion and lowneſs. Next ſpring tho' I began to feel a conſtant pain, fixed in the pit of my ſtomach which I miſtook for a pulmonary caſe, and therefore became ſtill more temperate and abſtemious even in this my milk and ſeed diet. During all this time, I generally rode a horſeback ten or fifteen miles a day, both ſummer and winter on the Oxford road from London. I began more frequently then to take an aloetick pill once in ten or fourteen days, (for Rhubarb never agreed with me) which always gave me great preſent relief in my ſtomach, and conſequently in my ſpirits. All this time I followed the buſineſs of my profeſſion, with great diligence and attention, in ſummer at Bath, and in winter at London, applying myſelf more particularly to chronical, and eſpecially to low and nervous caſes, they ſeeming more immediately to concern myſelf, and offering more frequently at Bath, where all of that kind in both iſlands, arrive firſt or laſt, who can afford it.

§ 8. The pain in the pit of my ſtomach, being now conſtant, violent, and ſeeming to increaſe, I began to think of Dr. Taylor's chewing the bark to cure his ague; and knowing it to be ſo ſovereign a remedy in ſtomach and nervous caſes, I got ſome of the fineſt, and chewed about half a drachm of it twice or three times a day, on an empty ſtomach; and in ten days or three weeks at moſt, I found ſo wonderful a change on my whole man, as to ſpirits, chearfulneſs, ſtrength and appetite, by it, that I thought it enchantment, and could ſcarce believe I was myſelf; and had I been much enthuſiaſtically given, would have accounted it miraculous, being naturally one of theſe quick-thinkers, who have a great ſenſibility either of pleaſure or pain. My juices being thin, ſweet and fluid by the diet, it ſeems there was nothing wanting to the perfecting health, but the winding up and bracing the ſolids, for which the bark was ſpecific. From that time forward I encreaſed in ſpirits, ſtrength, appetite and gaiety, till I began to find a craving and inſufferable longing for more ſolid and toothſome food, and for higher and ſtronger liquors; but being well appriſed of the danger of too ſudden and quick a tranſition, from a low to a high and fuller diet; I proceeded at firſt with great caution and warineſs, eating only the wing of a ſmall chick, and drinking but one glaſs of white wine (for I found all red, and eſpecially French, by a grating on my lax ſtomach and guts, keep me awake three or four hours in the night) all that ſummer and the next winter, (which I paſſed at

at London) I enjoyed perfect good health and ſpirits, though I had uſed little or no exerciſe; but notwithſtanding all my caution, I had certainly gone too faſt and too far into this new animal diet; for the ſpring following I was ſeized with a depuratory fever, which notwithſtanding all the ſkill and care of my brethren, the phyſicians, laſted above twenty days, and the medicine (after the univerſal Evacutions) that had the greateſt ſhare in my recovery, was, I think, large draughts of warm barley water or ſmall ſack whey, acidulated with Gas Sulph, which was adviſed by Dr. Baynard, towards the latter end of my fever; this, at laſt, threw me into a profuſe ſweat, which laſted above three or four days, and reduced me ſo extremely low, that for ſome time I lived chiefly on French Claret, with water and toaſted bread, this being the only food I could reliſh; and though I never exceeded half a pint, or at moſt a pint of wine a day, mixed with water, yet having uſed myſelf to ſo little for a great while before, this ſmall quantity kept me perpetually hectical and reſtleſs for many weeks, even after the criſe: ſo that I began to think I had done wrong before, in uſing myſelf to ſo little wine; and therefore to ſecure againſt ſuch an accident for the future, I began (after my perfect recovery) to inure myſelf by degrees to more wine, gradually dropping or leſſening the quantity of my milk and vegetables, and by ſlow degrees and in moderate quantities, living only on the lighteſt and tendereſt animal food for ſome time, and at laſt gradually went into common life, with

great freedom, but exact common temperance.

§ 9. But the the long and violent depuratory fever, which I did not get over entirely in less than six months, had so drained, drenched and wasted me, that upon my total recovery, my appetite being insatiable, I sucked up and retained the juices and chyle of my food like a sponge, and thereby suddenly grew plump, fat, and hale to a wonder; but indeed too fast. However, for near twenty years, I continued sober, moderate, and plain in my diet, and in my greatest health drank not above a quart, or three pints at most, of wine any day, (which I then absurdly thought necessary in my bulk and stowage, though certainly by far an over dose) and that at dinner only, one half with my meat, with water, the other after, but none more that day, never tasting any supper, and at breakfast nothing but green tea, without any eatable; but by-these means every dinner necessarily became a surfeit and a debauch, and in ten or twelve years, I swelled to such an enormous size, that upon my last weighing I exceeded thirty-two stone. My breath became so short, that upon stepping into my chariot quickly, and with some effort, I was ready to faint away, for want of breath, and my face turned black. At Ainhoe (waiting on the late honourable Mrs. Cartwright) and going up only one pair of stairs, with high steps, hastily, by pushing my breath a little too violently, to make room for those that were following, I

was

was immediately ſeized with a convulſive aſthma, returning by repeated and ſtrong inſpirations, fits and ſmall intervals, which laſted above a quarter of an hour, ſo that I thought to have died on the ſpot; but by evacuations and low living, I got rid of this diſorder alſo, in ſome degree, though after that, I was not able to walk up above one pair of ſtairs at a time, without extreme pain and blowing, being forced to ride from door to door in a chariot even here at Bath; and if I had but an hundred paces to walk, was obliged to have a ſervant following me with a ſtool to reſt on.

§ 10. About this time (twelve years after my firſt recovery) my legs broke out all over in ſcorbutick ulcers, the ichor of which corroded the very ſkin, where it lay any time, and the fore parts of both legs were one continued ſore. I had the advice and care of many of the moſt eminent ſurgeons in England, none of whom could heal them up even in three years. Tired out at laſt, I took Æthiops mineral for four months, in the midſt of winter: half an ounce at leaſt twice a day, and a purge with twelve grains of calomel once a week, obſerving a much lower diet than before; I found that the mercury had not only coloured the money in my pocket, and the buttons in my ſhirt; but to all my obſervation, the very ſubſtance of the Æthiops was tranſpired upon the plaiſter, every day, when my legs were dreſſed, viz. towards the end of the cure; at leaſt, the appearances ſeemed to me, on the plaiſters, like a ſteam or ſmoke from

from ſulphur and mercury, and was quite different from what it had been before I began that courſe: this I was perfectly aſſured of, though I did not then think of making ſuch a critical obſervation, asthat this inſtance might ſerve as a proof, that the Æthiops paſſed thro' the habit; though I am certain ſince, from repeated obſervations, that every preparation of mercury, and even the crude itſelf, in time, and in ſome lax habits, will ſalivate in ſome degree or another: and that mercury, in its minuteſt particles and inſenſible ſteams, does penetrate the ſolid parts of all living animals, as inflammable ſpirits moſt certainly do. After this courſe, my legs healed perfectly, with common dreſſings, and have continued ſound ever ſince; my health was likewiſe very good for four or five years after. But continuing the ſame full, though (commonly accounted) temperate diet, and uſing little or no exerciſe, I became at laſt heavy, dull, and Lethargick to an extreme degree, eſpecially after dinner; and the midſummer 1723. I was ſeized with a ſevere ſymptomatick fever, which terminated in the moſt violent Eriſipelas, and with the largeſt and fulleſt bliſters all over my thighs, that I had ever ſeen. I ſuffered extremely in the ſymptomatick fever, by violent head-aches, great ſickneſſes and ſinking: and having lately had two full-bodied patients, who had died of mortifications from that diſtemper, I was much frightened at mine. My blood was then, I found, one continued impenetrable maſs of glew, and my Eriſipelatous inflammations were ſo painful, (and attended with lowneſs

neſs, ſinking and inquietude) as reduced me to the very laſt degree of miſery. I had always reſolved, upon any great change in my health, to return to my old friends, milk and vegetables, and to abſtain from wine in a great meaſure, provided I had but ſufficient warning by any chronical illneſs. I then made a long journey in a coach, and lived on milk and white meats, drinking Briſtol water, and only a pint of wine a day, by which I was ſomewhat relieved, though not ſo much as to conquer my fears or my ſufferings; ſo that having continued this method for two months, I began gradually to leſſen the quantity of my animal food ſtill more, and at laſt, to live entirely on milk and vegetables: this, in ſome time, made my ſpirits vaſtly better; but ſtill, for two years, I was regularly and periodically ſeized every third month, almoſt to a day, with this Eriſipelas, the ſymptoms of which were indeed not ſo grievous as at firſt, though ſtill attended with violent head-aches, a ſymptomatick fever for forty eight hours before the eruption, large bliſters full of ſcorbutick ichor, and great lowneſs for the ſpace of a week; after which I recovered my priſtine ſtate. But I was always obliged to vomit before the erruption, to puſh it out: and relieve the head-ach and fever, and to purge after it was over. Thus I went on for ſeven or eight months, waſting daily, but at the ſame time recovering ſpirits, activity, and the uſe of my limbs. I had all that winter had a ſlight pain in the back tendon of my left leg, reaching down to my heel, which in March following terminated in a regular

gular fit of the gout, in the joint of my big toe; this confined me a fortnight or three weeks, and it had no ſooner left that place, than it ſeized my ſhoulder joints, where it continued for above a month. I paſſed the reſt of the ſummer pretty tolerably, but for theſe periodical returns of that Eriſipelas, which continued very regular, about two years. About the Michaelmas of that ſummer, I was ſeized with ſuch a perpetual ſickneſs, reaching, lowneſs, watchfulneſs, eructation, and melancholy, continuing ſix or eight months: that life was no longer ſupportable to me, and my miſery was almoſt extreme.

§ 11. At laſt, my ſufferings were not to be expreſſed, and I can ſcarce deſcribe, or reflect on them without horror. A perpetual anxiety and inquietude, no ſleep nor appetite, a conſtant reaching, gulping, and fruitleſs endeavour to pump up phlegm, wind, or choler day and night: a conſtant cholic, and an ill taſte and ſavour in my mouth and ſtomach, that overcame and poiſoned every thing I got down; a melancholy fright and pannick, where my reaſon was of no uſe to me: ſo that I could ſcarce bear the ſight of my patients, or acquaintances, that had not been daily about me, and yet could not bear being a moment alone, every inſtant expecting the loſs of my faculties or life; and ſurely nothing but Almighty power preſerved them both, ſuch as they are. I had a conſtant violent pain in the neck of my ſtomach, and was obliged almoſt every week to take a ſtrong emetick, without which I could not enjoy a moment's eaſe, beſides

ſides daily urging with my finger, or chewing tobacco. I had recourſe to my old friend the Quinquina in ſeveral ſhapes, but to no purpoſe. I drank Bath waters without ſenſible relief. I went out in my chariot, in the coldeſt winter weather, for four hours every day; but nothing mitigated my ſufferings. At laſt I tried the Fœtids, the Gums, the Volatiles and Vipers powders (not indeed regularly and ſteadily) but all in vain. In fine, I had recourſe to Opiates, which I knew were a ſlow poiſon; but one will ſtick at nothing for even a moments reſpite in ſuch extremities. This, inſtead of relieving, aggravated my miſeries; for ſo ſoon as the ſtupifying and confounding effects of them were over, my anxiety and ſinking was ſo extreme after, that I was forced to repeat them ſo often, and in ſo large doſes, that I was juſtly afraid, leſt by their becoming ſo familiar they would, at laſt, loſe even the poor, diſtracting, uncomfortable relief they afforded me; yet all this time, I attended indeed (in a manner) the buſineſs of my profeſſion, and took air and exerciſe regularly in the day time; but in ſuch a wretched, dying condition, as was evident to all that ſaw me. I had many different and contradictory advices, from my friends and acquaintances, who obſerved my miſery; but I neither could, from the nature of my diſtemper, nor from the ill effects the ſmalleſt trials of any thing propoſed, were attended with, continue them any time. I well knew my caſe was the gouty and eriſipelatous matter retired, and drawn into my ſtomach and bowels: I likewiſe knew, that if I took hot

hot and ſtrong medicines and cordials to drive them out (as is uſual) I ſhould thereby loſe all the p.ins I had taken, and the benefit of the abſtinence I had gone through, to thin and ſweeten my blood and juices, to open the obſtructions, and to obtain an extirpative cure, if poſſible there might be time enough remaining for it; but the worſt was, my ſtomach would not retain any medicine, for they had a preſent ill effect, by making my ſufferings more intenſe; however, I was perſuaded then to take a little ſtrong warm wine made with ſpices, and to have bread and this wine mixed for my dinner: continuing tea, with boiled milk, and toaſted bread for breakfaſt, but all this time I had no ſenſible relief. My family preſſed me extremely to go for London (where I had not been for many years) to paſs the dead of the winter among my old acquaintances and friends, for amuſement and diverſion only: but to this I was extremely averſe, apprehending I might be teized to change my regimen, and ſneered at by the free livers; and being convinced, from former experience, that if my life was to be ſaved, it was only by this regimen, at leaſt, if my time of diſſolution was come, I knew I ſhould die under leſs miſery by it, than by any other means.

§ 12. However, at laſt to prevent friendly teizing, and the character of obſtinacy, I promiſed to be paſſive, and to be governed by them; ſo in the beginning of December 1725, I ſet out, and with great difficulty got to London. Next day after my arrival, I ſent to the learn-

learned, ingenious, my very worthy friends, Dr. Arbuthnot, and Dr. Broxholm, who, at my desire, brought with them Dr. Mead and the late Dr. Freind, with Dr. Douglas and Dr. Campbell, all gentlemen of great learning, worth and experience. They unanimously advised me to try a warm chalybeat electuary, with Pyrmont waters, and by all means to drop my opiates; for as to cathartics, which were mentioned, they so exceedingly sunk and ruffled me, that I was always dying under them. This method being reasonable and just, I followed some time, continuing tho' the same regimen of diet: and though some of those gentlemen and others thought I might have then, with safety, changed my diet, very slowly, at least, yet having passed through the same course twenty years before, and having suffered to such extremity, and in a younger and more vigorous part of my life, and run the utmost hazzard, even by a very slow and gradual change: And knowing the danger others had undergone by the like change; I was firmly resolved to continue my regimen, happen what would; and indeed when all this was represented to these gentlemen and my other friends, none had the courage to press it; much less to urge it, in so insolent and sneering a manner as some, who ridicule all shame and truth, have thought fit falsely to represent it. I have once or twice, in nine or ten years, been tempted to eat an ounce or two of young tender animal food, but with such sensible suffering and oppression after, that I have resolved never more to make the trial: and I have

known others much younger than I, on whom a potched egg, under ſo long and ſtrict a vegetable diet, for an epileptick caſe, has had a diſagreeable effect. As the winter advanced, meeting with ſome true ſylphium to join with theſe other medicines, I became ſomewhat eaſier and more chearful by the ſpring, though almoſt every month I was forced to have recourſe to a ſtrong vomit to clear the glands: but by theſe warm chalybeat medicines, and the vitriolick waters, and drinking near half a pint, or rather a gill of port a day, I had, by the May following, forced out ſuch a fit of an eriſipelas, as the beſt and moſt experienced ſurgeons (who then treated me) had never ſeen the like: the whole leg, thigh, and abdomen being tumified, incruſted, and burnt almoſt like the ſkin of a roaſted pig: And ſuch a quantity of ichor iſſued from it, as was not to be expreſſed; at laſt it ended in a ſinuous ulcer in my leg, which confined me near two months, and the ſinking effects were not quite worn off in almoſt ſix; however I paſſed the next winter again in London much better, and in the ſpring was extremely eaſy, active and gay; for from the time of this laſt and moſt ſevere eriſipelatous paroxyſm, I reckon I mended daily: for this had the ſame effect upon my whole conſtitution now, as the depuratory fever before-mentioned had then, both being the criſe and period of my diſtemper, and the beginning of my perfect recovery. This was above ſix years ſince, though I became not perfectly well till the ſpring following, and indeed not abſolutely ſo till about four years ago.

13. Upon

§ 13. Upon the whole, as in my nervous and ſcorbutical diſorder, I had continued my milk, ſeed and vegetable diet, with proper evacuations, for above two years, before I obtained a complete recovery, ſo in this laſt illneſs, I had obſerved the ſame regimen near twice as long, before my health was perfectly eſtabliſhed; being in the firſt caſe twenty years younger than in the laſt: tho' my exceſſes were much more violent in the time preceding my firſt illneſs, than between that and the laſt, having, during all that interval, ſcarce once been heated with wine, and never eating animal food but once a day. But my exceeding bulk and want or inability of neceſſary exerciſe, and a continued, though temperate fulneſs, with the difference of twenty years in my age, concurred to make the paroxyſms even more diſtracting and painful, as well as more durable in this laſt caſe. And after all I have ſaid of my exceſſes, eſpecially in liquor, if it be conſidered, that I was near thirty years old befor I drank ſcarce any thing ſtrong, at leaſt, for a continuance: and that for near one half of the time ſince, viz. from thirty to ſixty, I ſcarce drank any ſtrong liquor at all: it will be found, that upon the whole, I drank very little above a pint of wine, or at moſt, not a quart one day with another, ſince I was near thirty: and I was never ſix times in my life overtaken with wine, and ſcarce ever taſted any diſtilled liquors, but as a medicine, however mixed or brewed; always believing them to be actual cauteries, and almoſt direct poiſon to an animal habit,

from their nature, and the delicacy of the animal machine: and during that whole time, I ſcarce ever ate animal food above once a day. But temperance is a mere relative thing; and by much obſervation I find, that notwithſtanding my large ſize, I was not made to bear animal food and fermented liquors in any quantity without ſuffering to the laſt degree. But I believe none will ever be brought to ſuch a regimen as mine is now, without having been firſt extremely miſerable; and I think, common life, with temperance, is beſt for the generality, elſe it would not be common. But extreme caſes require extraordinary remedies.

§ 14. I found I never began to recover fully and laſtingly, either firſt or laſt, till my blood had entirely loſt its ſize (which I came to know by an accidental occaſion for opening a vein) and all the former habit (except the mere organical membranes and ſolids) was waſted, wore away, and diſcharged by evacuations, diet, and exerciſe; for I had waſted and loſt of my former ſize and bulk, in this laſt illneſs, almoſt one third in weight and meaſure: and had paſſed throug a ſtate of entire bodily purification, and a true cylus metaſyncriticus, both firſt and laſt, before I began to recover and fill up again. Vomits were the firſt evacuations that with any relief, or without infinite ruffling, I could bear: and ſo ſoon as I could endure gentle ſtomach cathartics, I began already to mend; but no ſooner had I recovered any degree of eaſe and freedom, but my appetite and digeſtion returned

turned to their uſual ſtint towards my new food, and vomits were no longer neceſſary, nor indeed uſeful, they being only required to ſqueeze the internal glands, open obſtructions, and pump up the wind choler, and phleghm from the alimentary tube when lodged there.

§ 15. Upon any accident, diſorder or any greater oppreſſion or anxiety than ordinary, ariſing naturally in the courſe of the cure, I found that living even much lower under my milk and vegetable diet for two or three days at leaſt, would always help me out again, and reſtore me to my uſual ſerenity and freedom, (for I found temperance neceſſary even in this, as well as a higher diet, though exceſſes were not attended with ſuch extreme ſuffering) and ſcarce any time leſs than three days would do it; for though all my ſymptoms were leſs ſevere under it, yet I found by indulging a falſe appetite, or a liquoriſh palate even in it, that I exaſperated theſe milder ſymptoms, at leaſt to ſuch a degree, as was ſufficient to convince me, that the ſtomach and digeſtive organs were the primary and principal delinquents, ſufferers, and patients, in moſt, if not in all nervous ſymptoms, though this was not always ſenſible and manifeſt: and that by uſing them tenderly, and abſtemiouſly, all the reſt of the animal functions were proportionably relieved. And, I think, I never once departed from the ſimplicity of the alimentary goſpel, and indulged in onions and garlick, viz. the poignant, hard, ſpicy, or unctuous vegetables, with

much butter or oil, or in a greater quantity than uſual, even of the common ones for any time, but that I ſuffered pains and penalties in proportion.

§ 16. I found all my reſtleſsneſs, watchings, and want of tranquility or ſound ſleep, to be owing entirely to inflation, ſtored up wind and flatulence, conſtantly urging and ſtimulating as it were with its ſpring, elaſticity and points, the tender ſenſible membranes of the ſtomach and guts, and the whole glands and membranes of the abdomen; for upon faſting ſome time, eating very little, or very thin, light and ſoft food, or on uſing a great deal of more exerciſe, to urge the perſpiration, and to throw off and diſcharge this wind, vapour, or ſharp ſteams, I found my ſleep return in a greater degree; and I am bold to ſay, where no manifeſt fever, acute pain, interrupted circulation, or ſpoiled organ is the caſe, that want of ſleep and natural reſt proceeds from the diſorders of the alimentary tube, continually, tho' perhaps not ſenſibly, ſtimulated by this vapour. And hence it is, that aſſa fœteda, volatiles, fœtid gums, gentle diaphoretics and opiates, procure ſleep; merely by encreaſing and promoting perſpiration, and expelling this twitching vapour or ſteam, for which they ought chiefly to be uſed; and this ſerves to ſhew the neceſſity, and infinite preference of exerciſe to all anodyne medicines whatſoever, and even to cordials, diaphoreticks and volatiles, except as a preſent relief, whip or ſpur only

§ 17. Want

§ 17. Want of appetite and digeſtion moſtly proceeds from the thickneſs, groſſneſs, and viſcidity, of the juices and of the whole maſs of blood; every vein and artery thereby becoming like ſo many black-puddings, or leathern pipes, ſtuffed with a glewy or tenacious fluid: by which all the ſecretions being more ſcanty, and leſs being expended by them, leſs can be received through the lacteals into the blood; which ſhews the neceſſity and preference of the ponderous and deobſtruent medicines to procure an appetite and digeſtion, even to bitters, cordials or chalybeats themſelves: whoſe efficacy principally lies in ſtrengthening the ſolids, and winding up and contracting the fibres, to make them play, and compreſs with greater force the circulating fluids, which can never ſolidly anſwer, the intention of digeſtion and appetite. And accordingly, by quickſilver, æthiops, cinnabar, but eſpecially by mercurius alcaliſatus, and other mercurial preparations, I have been always able to cure the diſorders of the alimentary tube, inappetency, and even cholics, when ſcarce any other method or medicine could effect it. And ſeeing, by a thin, cool milk vegetable diet long continued, I found my appetite full as good as before, and likewiſe my ſtrength, activity, fleſh, and complexion, and every power, organ and faculty reſtored to as great a degree as I could juſtly expect at my time of life, had no ſuch diſorder ever happened; it appears that the fluids are chiefly and primarily the ſeat of diſorders: and that when they are ſufficiently ſweetened and diluted, they

they generally leave the ſolids with a ſufficient force and ſpring to play ſuch fluids off, and circulate them fully and freely; and then all the animal functions, and the exerciſe of the faculties will again be pleaſantly and regularly performed, as in perfect health; for good health ſuppoſes this ſtate: which does not depend on the kind of the diet, though mechanical ſtrength does. So that ſuch a diet is only proper for the thinking, ſpeculative, and ſedentary part of mankind, and not for the active, laborious, and mechanical.

§ 18. After I began to recover, I found little alteration from cold or heat, wet or dry, ſummer or winter ſeaſons, eſpecially as to my appetite, ſpirits or ſleep; at leaſt not near ſo much as I uſually found in my beſt health on theſe occaſions, under a full animal and fermented liquor diet; ſo that I can ſit, and walk, and be abroad in all weathers, ſeaſons or times of the year, day or night, without much dread or hazard of cold, and with little difference of clothing, providing I keep my ſtomach and chyliferous tube clear and clean; which often put me in mind of the ſaying of a Roman Emperor, who affirmed, that ſpitting, coughing, excretion, eructation, yawning, and the like, were ſymptoms and effects of mere lazineſs and luxury.

§ 19. After I had perfectly recovered, obſerving, that ſtill, on liquid, ſlippery ſtools, from cramming I was ſomewhat leſs lively and chearful, and rather more griped and inflated,

I reſolved to change my half pint or gill of port at dinner, into the ſame quantity of Florence, thinking it more binding and aſtringent. I eat at the ſame time a good deal of more butter with my vegetables, and plenty of old rich cheeſe; and liking nuts extremely, I procured from abroad and at home, great plenty of all kinds as filberts, walnuts, cheſnuts, almonds, &c. eating them in great quantities after dinner, by way of deſert. I went on all winter, and for eight or ten months in this regimen extremely well; and out of wantonneſs, to try what my conſtitution could now bear, I indulged freely (though in theſe only) together with my uſual milk and vegetable diet. But after my common, ſlight, vegetable fit of the gout, (which I ſtill have in the ſpring, without neceſſary confinement, though for an hour, or altering either regimen or clothing, or any other circumſtance, but a lameneſs for a few days) I had firſt a touch of my eriſipelas on my leg; after that I ſeemingly catched cold, and began to be ſick at my ſtomach, reaching, inflated, low-ſpirited, cholicked and with reſtleſs nights, and almoſt all thoſe diſmal ſymptoms I had gone through in my late long illneſs. I ſoon found my error, and that my conſtitution could not bear even that ſlight alteration without ſevere ſufferings. I had a violent humourous cough, and threw up great quantities of groſs viſcid phlegm, which I knew to be the nuts, not ſo ſufficiently digeſted and attenuated, as to become thin enough to circulate freely through the ſmall veſſels; but were thrown off and deſpumated upon the larger emunc-

emunctory and open glands. In a word, I ſuffered all the kind of miſery I had formerly, though not with quite ſo much violence and duration. I went through the former leſſer purgation again: repeated vomits, took frequent ſtomach purges, chewed bark, returned to the ſimplicity of my former regimen, leſſening their quantities, and drinking no wine (which I now have dropped for ever, but as others uſe ſpirits, for a cordial, if wanted) and drinking firſt Briſtol and then Bath, and after Pyrmont water, as the defluxion abated; by theſe means I got quite well in about three months, viz. in the Auguſt after; and ſince that time, I thank GOD, I have gone on in one conſtant tenor of diet, and enjoy as good health, as, at my time of life (being now ſixty) I, or any man, can reaſonably expect; and have learned, that young, tender, animal food is leſs dangerous, in a ſmall quantity, than hard, hot, ſpicy, and oily vegetables.

§ 20. I know not if it be worth the mentioning, that during my recovery, about four years ago, I was thrown, or rather threw myſelf, out of my chariot (upon the fore-horſes being frighted, and the coachman being thrown off his box) and falling on my head, was taken up dead and ſenſeleſs, being wounded in my temple, and the wheels of the chariot having entirely ſhaved my eye-brow. But on being blooded, I found my ſpirits and ſtomach moſtly affected with it. I grew, for ſome ſhort time, low, feeble, and loſt my appetite; but in two or three months recovered to a mi-

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racle, from what would have killed another with bad juices, and have continued perfectly well ever ſince.

§ 21. My regimen, at preſent, is milk, with tea, coffee, bread and butter, mild cheeſe, ſalladin, fruits, and ſeeds of all kinds, with tender roots (as potatoes, turnips, carrots) and, in ſhort, every thing that has not life, dreſſed, or not, as I like it; (in which there is as much, or a greater variety than in animal foods:) ſo that the ſtomach need never be cloyed. I drink no wine, nor any fermented liquors, and am rarely dry, moſt of my food being liquid, moiſt, or juicy; only, after dinner, I drink either coffee or green tea, but ſeldom both in the ſame day, and ſometimes a glaſs of ſoft ſmall cider. The thinner my diet is, the eaſier, more cheerful and lightſome I find myſelf; my ſleep is alſo the ſounder, tho' perhaps ſomewhat ſhorter than formerly under my full animal diet: But then I am more alive than ever I was, as ſoon as I awake and get up. I riſe commonly at ſix, and go to bed at ten. The order I find in this diet; from much experience, is, that milk is the lighteſt and beſt of all foods, being a medium between animal ſubſtance and vegetables; dreſſed vegetable, leſs windy and griping, than raw; ripe fruit than unripe; the mealy roots more than the fibrous; and the dry than the crude vegetables. I find much butter, cream, fat and oily vegetables, and eſpecially nuts both hard of digeſtion, ſtuffing and inflating. When I am dry (which is rarely) I drink Bath, Briſtol, or Pyrmont water.

§ 22. I

§ 22. I am heartily ashamed, and humbly beg pardon of my polite ond delicate readers (if any such should deign to look into this low tattle, contrary to my intention.) I know how indecent and shocking Egotism is, and for an author to make himself the subject of his words or works, especially in so tedious and circumstanciated a detail: but so various and contradictory have been the reports of, and sneers on my regimen, case and sentiments, that I thought thus much was due to truth, and necessary for my own vindication; and perhaps it may not be quite useless to some low, desponding, valetudinary, over-grown person, whose case may have some resemblance to mine: which every one's has in some degree, that has a mortal tabernacle, subject to and afflicted with nervous disorders, by a mistaken regimen, or hereditary misfortune: and I have on that account, written this in a plain narrative stile, with the fewest terms of art possible, without supposing my reader, or shewing myself, to have looked ever into a physical book before; thinking this manner and style might be most instructive and beneficial to common valetudinary readers: and tho' some may not have quite my bulk and natural strength, or have run into such excesses, or have not begun to manage so early in life as I did first, yet they will only for that require lesser or greater doses of the same method, medicines and management; and if it have not quite so full and perfect an effect, as, under God, it has had with me, (though, perhaps, the worst subject and the most difficult case possible, for

so

ſo abſolute a cure) yet it may, and will always have a better than any other method (I mean only in ſo deplorable and excruciating a caſe as mine was) and if it cannot cure, it will certainly reprieve, and make the ſufferings of all ſuch miſerable perſons more tollerable, as I have experienced once and again, in the moſt eminent degrees: who, from the moſt extreme miſery, do now enjoy as perfect health, as much activity and chearfulneſs, with the full, free and perfect uſe of my faculties: a facility of ſtudy, and of going about the buſineſs of my profeſſion; and in ſhort, of every rational function of life, as I was ever capable of in my beſt days: and indeed of every thing worth living for as a free and rational intelligence; every thing I ſay, except that I cannot eat and drink ſo highly and voluptuouſly as I have formerly; and, if I know my heart (which I am ſure I do not fully) though I were to be eternal and unaccountable, I ſhould live (at leaſt wiſh to live in the main and as to diet) as I now do, and would not willingly and deliberately go through the ſame miſery, for the mere gratification of my ſenſes only; no, not to obtain the dominion of our ſyſtem, and all the glories and pleaſures in it. What I may happen to do, God only knows; I am too old, I hope, to make any new trials and changes in this my bodily regimen; and indeed to what purpoſe? being as well as any, and much better than moſt are at my time of day: and therefore, with God's grace, if my health, ſenſes and love of virtue continue with me the ſame, I ſhall, I hope, go on in the method now de-

ſcribed, and live, and, I hope, die in continual gratitude to the beſt of Beings, who, by an over-ruling providence, and, as it were, by mere caſual hints, far beyond the reach of my penetration, has irreſiſtibly (as I ſhould almoſt ſay, if I felt not my own liberty) directed the great ſteps of my life and health hitherto.

Miſericordias Domini in æternum cantabo.

The

The CONCLUSION

Of the AUTHOR's LIFE.

AFTER all the pains I have taken, I have not yet got ſo large a ſhare of enthuſiaſm, as to hope by theſe my poor labours, to do good to any, except perhaps, to a few poor, low, valetudinary, dying, miſerable creatures, who have not the courage magnanimouſly and glorioufly to ſuffer, pine, and putrify. The brave, the bold, the intrepid, the heroic, who value not pain, who can ſuffer for diverſion, and who prefer death with a bounce, to life, on ſuch conditions as I propoſe: and chooſe rather to extinguiſh now, than forty or fifty years hence, will heartily deſpiſe and pity me and my lucubrations. Nunquam perſuadebis etiamſi perſuaſeris. You ſhall never convince though you convict me. I have heard of a great modern philoſopher, celebrated for his wit, wealth, and high living, who uſed, in the ſunſhine of his days, to boaſt, that if temperance and abſtinence could make a man live half a century longer, in gaiety and mirth, it were worth the while then to deny one's appetites; but for ten or a dozen of years more, it was but a poor purchaſe; and yet I have been told, that the ſame hero, when his time

came, would have parted with his great eſtate for a reprieve of a few years. I own I am one of thoſe poor mean-ſpirited wretches, who am contented to live as long as nature deſigned me to laſt, and deſire to ſubmit with the utmoſt peace and reſignation I can arrive at when that period is expired; but for pain, ſickneſs, and eſpecially for oppreſſion, anxiety and lowneſs avoidable, they are my mortal averſion, and no means would I refuſe to avoid them, but thoſe, which I am convinced, would infallibly bring me into greater miſery and ſuffering; and yet, if I miſtake not my own nature, I have the appetites, paſſions, and feelings common to other men; and I uſually aſk myſelf the queſtion, and look into my own heart for an anſwer, to any thing propoſed concerning human appetites, paſſions and feelings that are natural and not forced: and give little credit to what others ſay contrary to ſuch ſentiments. It is true indeed, there are as many and as different degrees of ſenſibility or of feelling as there are degrees of intelligence and perception in human creatures; and the principal of both may be perhaps one and the ſame. One ſhall ſuffer more from the prick of a pin, or needle, from their extreme ſenſibility, than others from being run through the body; and the firſt ſort, ſeem to be of the claſs of theſe quick-thinkers I have formerly mentioned; and as none have it in their option to chooſe for themſelves their own particular frame of mind, nor conſtitution of body; ſo none can chooſe his own degree of ſenſibility. That is given him by the Author

of

of his Nature, and is already determined; and both are as various as the faces and forms of mankind are. I imagine therefore, there must be required a particular make and frame, both of mind and body, to determine any one to receive heartily and purſue ſteadily this (as it were) material metaphyſics of a regimen. There ſeems to be neceſſary, previous to a conviction of the benefit and neceſſity of ſuch a ſtate of purification, a Je ne ſcai quoi, to make men comprehend, embrace, and proſecute this ſelf-denying doctrine, for the ſake of ſuch inſenſible trifles, as health, clear faculties, chearfulneſs, activity, and length of days, when they are in danger. If this corporal ſenſibility, as well as intellectual delicacy is wanting, they will prove but ſhort-lived, diffident and daſtardly material ſpiritualiſts, and fall away in the time of trial; though he that hath ears to hear will hear: and good and ſound threſhing, great and extreme miſery, pain, lowneſs, and anxiety, will go a great way to beget this ſenſibility, and conviction; for the means uſed by infinite wiſdom and goodneſs towards reclaiming his wandering creatures, ſeem only to be either love or puniſhment: that thoſe whom love will not draw and allure, puniſhment may drive and force; but neither frame, diſpoſition, organ, nor faculty can make their objects, or alter their nature, which are things given and determined. The immutable laws of nature, and the relations of things are conſtant, and will ſubſiſt in their order, notwithſtanding our errors, miſtakes, or prejudices. And it will be eternally true,

ſo long as we have ſuch bodies, that only temperance and abſtinence, air, exerciſe, diet, and proper evacuations can preſerve life, health, and gaiety, or cure chronical diſeaſes: I mean in general and in the main; and the contrary will always deſtroy them; and that they will ever mutually expel one another, like fire and water. Even Homer, three thouſand years ago, could obſerve, that the Homolgians (theſe Pythagoreans, theſe milk and vegetable eaters) were the longeſt lived and honeſteſt of men. Milk and honey was the complexion of the land of promiſe, and vegetables the diet of the Paradiſiacal ſtate: and ſince ſuch a diet will (if any thing) certainly cure, by the confeſſion of all phyſicians, learned and unlearned, ancient or modern, high or low-livers, the gout, the conſumption, and the ſcurvy, and ſuch like attrocious, otherwiſe incurable and mortal diſtempers; it will be eternally true alſo, quod poteſt majus poteſt minus, or that, what will do to the greater, will do the leſs of the ſame kind: And let the brave and bold, the free-living and free-thinking profeſſors ſneer or rail as they pleaſe, there muſt be an eaſier, ſimpler, and more natural way of preſerving health and chearfulneſs, of lengthening life and curing diſtempers, than that founded on deep reſearches, tedious details, ſtudied ingenuity, and fineſſing, elſe the poor, the illiterate, the laborious, and the ſolitary, (the far moſt, if not the leaſt corrupted part of our ſpecies) would be of all men, the moſt miſerable when ſick. And accordingly it is obſervable, that Hippocrates, Gallen,

Gallen, Celſus, and others of the primitive fathers of phyſick cured by air, exerciſe, diet, and evacuation moſtly, if not only, even as ſucceſsfully, (though not quite ſo ſoon perhaps) as we by all our mathematicks, natutal philoſophy, chymiſtry, anatomy, knowledge of materia medica, and animal oeconomy. Far be it from me, to leſſen the value and neceſſity now, of thoſe divine ſciences; for ſince our luxury has kept pace with our knowledge: the obſtinacy and violence, the number and degrees of our diſeaſes have increaſed proportionally; and therefore he that would honeſtly and ſucceſsfully practiſe phyſick, on the patients and diſeaſes now as they are, ought to know all theſe mentioned ſciences, to the greateſt degree he can poſſibly, to enable him even to alleviate, mitigate, leſſen or cure theſe unnatural and infernal diſtempers now extant; and that phyſician will never arrive at true, natural and beautiful ſimplicity, either of the theory or practice of phyſick, who has not paſſed thro' endleſs multiplicity in ſtudy, obſervation, and experiment in theſe ſciences; ſuch a ſimplicity is the greateſt contradiction to lazineſs, foreign ſtudies, negligence, incurioſity and ignorance in the profeſſion; but ſuch a ſimplicity (produced by rejecting need-not's) when (if ever) attained, is worth a million of theſe little falſe and foreign arts ſometimes uſed to riſe in it; for it is, in truth and reality, an eminence of light and tranquility.

Deſpicere, unde queas alios paſſimque videre,
Errare atque viam palantes quærere vitæ.
Lucret.

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